120 CHALLENGING QUESTIONS

1

FIRST EDITION

MASTERING SELECTIVE
## CRITICAL REASONING

STEVE XU

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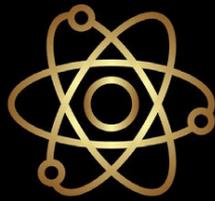
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EDITOR'S NOTE

My name is Steve and I set out on a mission to truly empower kids in their educational endeavours. Having been through all the rigorous tests myself and in the education industry for over a decade I have come to understand the fundamental factors required for students to excel in their education.

I know you will find this book valuable and if you would like to speak to my team and I, reach out to us here:

https://scholarlytraining.com/

Regards, Steve.

PREFACE

Critical Reasoning is one of the most perplexing aspects of New South Wales OC and Selective Exams. Its cryptic code can only be broken by the most diligent of students who are well-versed in the areas of comprehension, identifying logical flaws and ability to strengthen an argument. Unlike traditional General Ability, critical reasoning is open-ended in its nature and hinges on the ability of students to draw conclusions whilst being given limited information.

In addition, the students are required to take these standardized examinations under high time constraint and precision. Since thinking skills was introduced for the selective exam of New South Wales 2021, parents, kids and even instructors had been confused about how to deal with these critical reasoning type questions swiftly and accurately.

Surely having an accessible, reliable, gold standard guide should therefore be a necessity for those striving to learn, improve or fine tune their skill-set ahead of the OC or Selective exams. Having coached thousands of students at Scholarly Prep for these exams and achieving exemplary results, it is only fair for me to spread my knowledge to those who seek for it. Therefore, this book you see here is a structured, easy to understand, and comprehensive instruction manual on how to break down critical reasoning questions in Thinking Skills.

In this book, every kind of in-depth evaluation was divided into chapters to enhance students' skills. Beyond these specific training resources, I have identified and described tactics and techniques on how to approach different types of critical reasoning questions with precision and efficiency, along with other diverse complexities in the different types of passages on which students can be examined to increase their awareness.

TABLE OF CONTENTS

IV Types of Logical Flaws

Types of Critical Reasoning Questions

1.1 SUMMARISING MAIN CONCLUSION

- Conclusion if situated within the text
- Task: Identify and summarize main conclusion
- Filter out: Overgeneralizations, assumptions, intermediate conclusions

Paragraph on this

The conclusion is the one statement that is supported by the other statements, and that itself doesn't support any other statements.

Here are some suggestions that you can take to be able to successfully summarize conclusions:

- Find the point: Determine which statement seems like the main prediction, value judgment, interpretation, or theory. What is the one thing the arguer is trying to convince us of?

- Look for support indicator words: Some words indicate that the statements they introduce are part of a support statement, and are not the conclusion. Support indicators like because, since and for can introduce statements that explain why the arguer believes a claim.

- Double-check the claim: If the statement you chose seems to retroactively, or continue on to, support a different claim, then you haven't chosen the main conclusion. In fact, it's now more likely that the different claim being supported is the main conclusion.

- Look for conclusion indicator words: Some words are good indicators that the statements they introduce are part of a conclusion. The most common examples are thus and therefore, but however, yet, although and but can indicate conclusions, too.

Don't use any more than a sentence or two to summarize the point of the passage! This is where filtering out of overgeneralizations, assumptions, etc. occurs. Use the time you have to analyze how the author is making his or her point more powerful and persuasive and why the author might have chosen those methods to make the point.

Many children from poor backgrounds would benefit from wearing spectacles but do not have them. Sometimes parents are not aware of their children's poor eyesight, but most often they suffer from financial constraints. The government should provide free glasses to poor children with eyesight problems. A recent study of underprivileged students with poor vision demonstrated that those who were given free glasses enjoyed an improvement in test scores equivalent to almost a year of additional schooling. Using the most conservative estimate of the impact of schooling on salary, this would significantly increase an average school-leaver's annual income and tax contributions, and by far more than the cost of a pair of glasses.

Which one of the following best expresses the main conclusion of the above argument?

A. *Exam marking should take into account any disabilities the student might have.*

B. *Parents should be educated about potential eyesight problems in children.*

C. *Children from poor backgrounds with bad eyesight should be given additional schooling.*

D. *The government should help financially with the provision of children's glasses.*

We can see in the question above the conclusion is situated within the text "the government should provide free glasses to poor children with eyesight problems." The answer to this question is D, which is actually the same sentence but with a few synonyms to try and trick students into picking a different option. All of the evidence in this text is aimed at supporting the benefits of giving glasses to underprivileged children whilst the initial 2 sentences are saying that poorer families are unable to give access to these benefits for their children due to 'financial constraints.' This is why finding the point of the argument and double checking the claim are extremely important. In other words, find the one main thing the author is trying to argue. It's very easy to choose option C or B, because the text mentions parents being unaware of eyesight problems and that children from poor backgrounds with bad eyesight struggle in school. But this is actually EVIDENCE FOR the main conclusion rather than being the main conclusion itself.
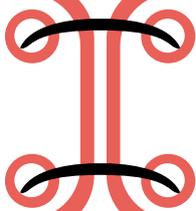
1.2 DRAWING A CONCLUSION

- The conclusion is not directly stated
- Task: infer the main conclusion
- Consider evidence, arguments, and premises

Paragraph on this

These questions will ask you to draw conclusions from information included in the passage.

EXAMPLE

- "Which of the following statements about ___ is best supported by the information provided?"
- "The author of the passage would most likely draw which conclusion about ___?"
- "Which one of the following is a conclusion that can be drawn from the above passage?"

Here are some suggestions that you can take to be able to successfully draw conclusions:

- **Put it in your own words:** Often you will be asked to draw a conclusion from a specific idea contained in the passage. It can be helpful to sum up the idea in your own words *before* considering the choices.
- Use **process of elimination** to get rid of conclusions that can't be supported, until you find one that is

EXAMPLE

Competition between ice cream brands is strong and companies are constantly trying to improve their reputation for the quality of their products.

Data from scientific research might just give them that edge over their competitors.

Experiments tested if the taste of the ice-cream was affected by the packaging. The study found that ice-cream tasted better when the packaging was blue in colour. Similarly, ice-cream tasted

creamier when the containers were smaller. Ice-cream from a glass container tasted more expensive than ice-cream from a plastic container.

Which one of the following is a conclusion that can be drawn from the above passage?

A. People choose ice-cream brands only because of the quality of the product.

B. Companies should think carefully about what packaging they use.

C. Companies should pay less attention to product advertising.

D. Customers pay attention to the packaging of their food.

In this example, the main conclusion isn't just stated as one of the answers. Using the process of elimination we can eliminate option C, because it goes against the entire point that **packaging is important.** Options D and A mention 'people' and 'customers' whilst the passage doesn't actually mention anything about customers. The **scientific research** is NOT the same as **customer feedback** and the initial 2 sentences are solely focused on companies and their products, not people or customers. This is why it's important to summarise the text and put it into your own words. The correct option in this instance is B.

1.3 IDENTIFYING AN ASSUMPTION

- Assumption – unstated and implicit premise of the argument
- Argument will collapse without the assumption
- To identify the assumption: identify conclusion, identify reasoning, consider 'unstated portions' aka. Assumption

An assumption is a claim or belief that is presumed true, without necessarily being warranted or justified. The premises of many arguments are assumptions. In other words, the conclusion of an argument often rests on one or more assumptions.Some assumptions that are made in the course of an argument are implicit rather than openly stated; hence an assumption that is shown to be false or unwarranted leads us to the conclusion that the argument is judged unsound.

1.4 ASSESSING IMPACT OF ADDITIONAL EVIDENCE
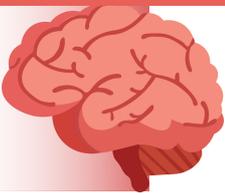
- Answer options will contain 'additional evidence' which will modify the premise of the argument
- Assess which answer option has the greatest impact on weakening or strengthening the argument depending on what the question is asking.

Additional evidence either strengthens or weakens arguments. The additional evidence might suggest that something is true that would have been predicted given the premise of the argument, and thereby strengthen the argument. However, when the additional evidence would suggest that something is unlikely to happen, then, it must weaken the argument.

EXAMPLE

Research shows that hockey and football players are more quickly moved to hostility and aggression than are athletes in noncontact sports such as swimming. But the researchers have come to the untenable conclusion that contact sports encourage and teach participants to be hostile and aggressive. The football and hockey players were probably more hostile and aggressive to start with than the swimmers.

Which of the following, if true, would most strengthen the conclusion drawn by the psychological researchers?

A. The football and hockey players became more hostile and aggressive during the season and remained so during the off-season, whereas there was no increase in aggressiveness among the swimmers.

B. The football and hockey players, but not the swimmers, were aware at the start of the experiment that they were being tested for aggressiveness.

C. The same psychological research indicated that the football and hockey players had a

great respect for cooperation and team play whereas the swimmers were most concerned with excelling as individual competitors.

D. The research studies were designed to include no athletes who participated in both contact and noncontact sports.

The above is an example of a question that is asking which statement **strengthens** the conclusion drawn by the researchers in the initial text. It's important to summarise the main premise of the argument and then pick which option strengthens that premise. In this example, the main premise is that football and hockey players (contact sports) are more aggressive than swimmers, and that their sport encourages this sort of behaviour. We can immediately eliminate option C, as this option talks about cooperation and teamwork, which is irrelevant. option B and D seem ok at first glance but we're looking for the best option which is A, which most strongly supports and strengthens the initial premise.

1.5 DETECTING REASONING ERRORS

- Explaining why reasons does not = conclusion
- Reasoning errors: logical fallacies, over-generalisation, misguided assumptions, overlooked information etc.

Skillful readers analyze the quality of written evidence and the reasoning behind the analysis. They can identify fallacious arguments, spot biases, and unwarranted assumptions. Errors in reasoning result in false conclusions, and thereby should be carefully studied and looked into.

EXAMPLE

Whoever stole the diamond necklace, must've had both determination and skill.

Sasha :"Nav had determination and is a skilled robber, he must have stolen the diamond necklace"

Jen: "Steve didn't have determination, so he couldn't have stolen the diamond necklace."

If the information in red is true, whose reasoning is correct?

A. *Sasha only*

B. *Jen only*

C. *Both Sasha and Jen*

D. *Neither Sasha nor Jen*

In this question a TRUE statement is presented. This is highlighted in red. Below this true statement is usually 2 additional statements which may or may not be true. The students must identify which of these statements, if any, are correct in their reasoning. Now, many students are inclined to believe that Sasha's statement is correct. Upon first glance it is very easy to make that mistake but you must read both statements and the question very carefully, and use your critical thinking abilities to deduce if there are any unwarranted assumptions, fallacies or
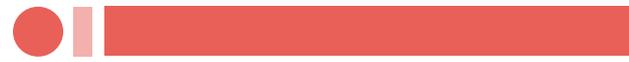
over generalisations being made.

Just because Nav had both factors stated in the red text (determination and skill), it doesn't mean he is the robber. Sasha's statement uses the language 'MUST HAVE BEEN'. If he stated Nav 'COULD HAVE BEEN THE ROBBER', his statement would have been true.

Let's have a look at Jen's statement and analyse why it is correct. The original question states that both determination AND skill are required to have stolen the necklace. Jen states that Steve did not have one of these NECESSARY factors (determination) so he couldn't have stolen the necklace. That is why her reasoning is correct and the answer to this question is B.
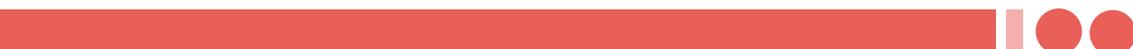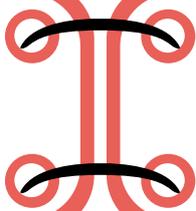
1.6 MATCHING ARGUMENTS

- Identifying an argument with the similar logical structure as that provided in the passage

The degree of the conclusion of the argument in the correct option will often match the degree of the conclusion of the argument in the passage. It is important to note passages of the same type and similar degree as the conclusions in the answer. If you're short on time, your awareness of matching arguments help you eliminate choices quickly.

EXAMPLE

A zoologist established that all lions roar. Therefore, any animal that roars is a lion. So, if you were to hear an animal roar, you can certainly say that the animal is a Lion.

Which of the following arguments most closely parallels the flawed reasoning above?

A. All tablets are made from glass. Therefore picking a glass product at random would mean it's a tablet.

B. Only overpriced items should be avoided. Cheap items should not be avoided.

C. All kangaroos live in South Australia. If you go to North Australia, you will not see any kangaroos.

D. If some people are dangerous and dangerous people should be avoided, then some people should be avoided.
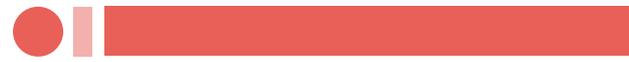
In this example, students must first identify the flaw in the initial argument. After this they need to pick the answer option (A-D) that most closely resembles the flaw in the initial argument. The flaw in this question, is that the arguer assumes that because all lions roar, they are the only animals that roar. This is obviously wrong because if you heard an animal roar but couldn't see what it was, it could be a large number of different animals, not just a lion. Now let's take that flawed logic and apply it to our answer options. Answer option A similarly assumes that since all tablets are made from glass, they are the only glass product out there. That is why A is the correct option.

1.7 APPLYING PRINCIPLES

- Identify the underlying principles of the argument in the presented passage
- · Select the statement (from options A-D) that demonstrates a similar principle
- · Helpful to sketch out the scaffold of the argument

Types of Conclusions

2.1   PREDICTION

A prediction asserts the arguer's opinion about something that will take place in the near future. If the arguer believes that something will or will not happen at some point in the future, the chances are good that it's the argument's main conclusion.

EXAMPLE

Cars will continue to play a significant role in society. There will be many more automobiles on the road in the near future.

Which one of these statements, if true, best negates the above claim?

A. More individuals will need to drive to work as the developing world becomes increasingly urbanised.

B. The ever increasing concern for the environment will result in a huge increase of investment into trains and train lines.

C. As people's wages rise across the world, vehicles will become more accessible to a wider range of individuals.

D. Every year, millions of automobiles are purchased by customers in emerging markets like China and India.

In this example the use of the language 'there will be' demonstrates that there is a prediction happening in the question. This is a very good clue to what the main conclusion of the argument will be. '*There will be many more automobiles on the road in the near future.*' Now we know the main argument of the question we have to find the option which BEST NEGATES this claim. Once you know the main argument, this question becomes very easy. Options A, C and D all support the fact that MORE cars will be on the road, or bought in the future. Therefore the correct answer is B, because an increase in trains and train lines would likely result in the decrease of automobiles on the road.

2.2 VALUE JUDGEMENT

Value judgements are opinions about the perceived value or worth or rightness or wrongness of things. One becomes value judgements if you claim that there is something 'wrong' or 'excessive' or 'obscene' about something. When one says, therefore, that a value judgement is true (or false), they are using the words in a broad sense to mean something like 'true' (or false) in my opinion', or 'true (or false) for me.

EXAMPLE

Value judgements often pop up in questions that ask to find the flaw in a presented argument. Phrases like 'In my opinion' or 'from my point of view' in a question like this are usually very good hints as to WHERE the flaw is in the question.

They can also pop up in strengthen/weaken questions, and are big hint of what statement you are looking to strengthen or weaken (depends on what the question is asking). Here is an example:

Jason says ""Access to the Internet, in my view, is tremendously helpful to both people and society as a whole."

Which one of these statements, if true, best negates the above claim?

A. Online investigative journalism aids in the exposure of political corruption and the integrity of politicians.

B. Social media allows us to connect with people we wouldn't be able to otherwise.

C. The Internet has disconnected humans on a personal level and has brought about many unhealthy habits which cost governments millions of dollars a year to treat.

D. The internet contains many users with malicious intent.
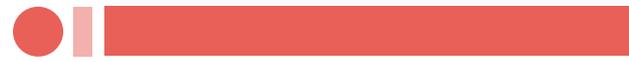
In this question 'in my view' is the language that is used to show that Jason has made a value judgement. We are looking to NEGATE his view. We can immediately eliminate options A and B, because they are STRENGTHENING Jason's Value Judgement or claim. Whilst D seems like a good answer, C most STRONGLY negates his claim. That is why it is correct in this case.
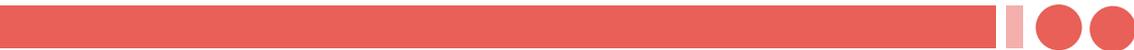
2.3 RECOMMENDATION

This type of conclusion asserts that the best method or course of action (or, in its negative form, recommends against a certain method or course of action. Recommendations or suggestions are claims of yet another sort. Like value judgements, they are not straightforwardly true or false. Often, a keyword such as 'should' or 'ought to' will signal a recommendation, but sometimes the recommendation is implied.

2.4 INTERPRETATION
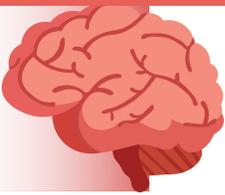
Interpretation refers to the implementation of processes through which data is reviewed for the purpose of arriving at an informed conclusion. The interpretation of data assigns a meaning to the information analyzed and determines its signification and implications.

2.5 THEORY

Defining 'theory' has to take into account the 'why' question, but a theory is deeper than that. It attempts to explain the reason behind the 'why' to provide understanding. It is not just 'any explanation- a theory comes into being when a series of ideas come to be held and accepted by a wider community of people. Several processes are observed before a theory is developed.

Strengthening/ Weakening an Argument

3.1 CHOOSING A WEAKER OPTION

Some of the time, you may find 2 or even 3 statements that may support the premise (reason). You need to make sure that you select the statement which best supports the premise. An answer that weakens the argument can directly disprove the assumption. Any choice that states that the assumption is wrong will weaken the argument.

EXAMPLE

A NASA scientist has proposed the existence of aliens on Mars. He claims that if we can prove the presence of water or footprints on Mars, then that would serve as irrefutable proof that extraterrestrial life forms exist.

Which one of these statements, if true, best supports the above claim?

A. *The resilient nature of life suggests that life forms can exist outside of Earth*

B. *Mars contains moderate quantities of vapour and ice.*

C. *There is no clear evidence that aliens exist on other planets*

D. *The properties of Mars are most similar to Earth, so it has the greatest probability of life*

Students must make sure they know if the question is asking to strengthen or weaken the initial claim. READ CAREFULLY. We can see in the above example, the question is asking you to find a statement which best supports the initial claim. Students need to make sure to read each answer carefully, and not be too hasty to choose the first 'good' answer they see. Whilst D is a good option, because it mentions keywords such as 'Mars' and 'probability of life' it's not the STRONGEST option. Option B is in fact the correct answer for this question, as it provides the 'irrefutable proof that extraterrestrial life forms exist' that the 'NASA scientist' in the question is looking for. This is because vapour and ice is just another form of water.

3.2 CHOOSING AN IRRELEVANT OPTION

A statement may support the premise. However, you need to select an option that not only supports, but is relevant to the premise.

If different evidence can strengthen the argument; different evidence can weaken the argument as well. Any new information given in an answer choice that makes the assumption less likely to be correct will weaken the argument as a whole.

EXAMPLE

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Which one of these statements, if true, best supports the above claim?

A. *The resilient nature of life suggests that life forms can exist outside of Earth*

B. *Mars contains moderate quantities of vapour and ice.*

C. *There is no clear evidence that aliens exist on other planets*

D. *The properties of Mars are most similar to Earth, so it has the greatest probability of life*

Students must make sure they know if the question is asking to strengthen or weaken the initial claim. READ CAREFULLY. Carrying on with the previous example, we can see in the above question that we must find a statement to best support the claim, the claim being that we can prove the existence of extraterrestrial life on Mars if we find water or footprints. Options A, B and D (highlighted in blue) are supporting (to varying degrees) the possibility of life outside of earth. Option C (in red) however, states there is 'No clear evidence that aliens exist on other planets'. This completely goes against the initial claim and is hence the irrelevant option. It's a very good idea to eliminate the obviously incorrect and irrelevant options, as that will narrow down your options and improve your chance of choosing the correct answer.

The statement may somewhat relate or only vaguely touches on the premise.

When looking for an argument within a passage, you need to be alert that sometimes the conclusion is stated before the premises, sometimes after the premises, and sometimes embedded in the middle of the premises. Often, sentences are included that are neither premises nor conclusions; they are there for elaboration or for some other purpose, such as to entertain, to describe, to explain, to discount a possible complaint, and so forth.

EXAMPLE

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B. *Mars contains moderate quantities of vapor and ice.*

C. *There is no clear evidence that aliens exist on other planets*

D. *The properties of Mars are most similar to Earth, so it has the greatest probability of life*

Following on with the same example from 3.1 and 3.2, Option A is an example of an answer that vaguely touches on the idea of alien life outside of Earth, but it's not specific to Mars, nor does it mention anything about footsteps or water ON MARS.
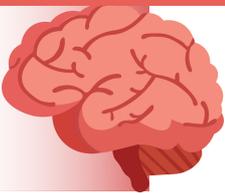
Sometimes there is more than one reason for a statement. Do not choose an option where it does not support the premise fully.

EXAMPLE

Alex says "Since my parents were children, the world has changed dramatically. My quality of life, in my view, is better than theirs back then."

Which one of these statements, if true, best negates the above claim?

A. The newer generation has more free time than previous generations, which enhances the quality of their lives and allows them to pursue their interests.

B. The quality of life in current generations is quite bad.

C. The percentage of people with mental illnesses is much higher than it was 50 years ago

D. The current generation, on average, has more people living paycheck to paycheck and in poorer conditions.

In this question, we are asked which statement NEGATES the initial claim that quality of life in current generations is BETTER than it was in the previous generation. In this question students should IMMEDIATELY eliminate option A because it is strengthening the initial argument, not weakening or negating it. Whilst option B looks quite good, it's not weakening all the premises of the initial argument. Whilst it does state that the quality of life for current generations is 'quite bad', there is no comparison to the previous generation's quality of life. D is the stronger option in this case, as it negates all the given premises of the initial argument. Option D compares the average of people living 'paycheck to paycheck' (i.e. bad quality of life) to the previous generation. This is why it is the correct answer.

You need to choose an option that supports the premise but does not have a negativing element.

The start of a conclusion is often indicated by the word therefore, so, or thus. In addition to these conclusion indicators, the terms because and suppose-that signal that a reason is coming. Since the technical term for reasons is premises, the terms because and suppose-that are called premise indicators. The logical reasoner is always on the alert for premise indicators and conclusion indicators.

EXAMPLE

John says: "A new shopping mall will assist local businesses and improve respect for our neighbourhood."

Which one of these statements, if true, best supports the above claim?

A. A shopping mall will almost definitely result in increased traffic.

B. The shopping center's jobs are available to the locals.

C. The addition of a retail complex will improve the quality of life for the residents in this area, as well as increasing the number of environmental riots.

D. A shopping mall would result in increased traffic to all businesses in the area.

In this example, Option C is a perfect example of this common pitfall. Whilst it does somewhat support the premise in the original question, it also has an element which negates it with the words: "as well as increasing the number of environmental riots". The correct answer for this question is option 'B'. This is because it most STRONGLY supports the initial claim which talked about 'assisting local businesses'. An increase in traffic to all businesses in the area would greatly assist local businesses therefore making it the correct answer.

3.6 CHOOSING AN OPTION THAT AGREES WITH THE OVERALL VIEWPOINT, WHEN THERE ARE BETTER OPTIONS

If there are multiple suitable options, you need to be choosing the one that is both the most specific in its nature.

When looking for an argument within a passage, you need to be alert that sometimes the conclusion is stated before the premises, sometimes after the premises, and sometimes embedded in the middle of the premises. Often, sentences are included that are neither premises nor conclusions; they are there for elaboration or for some other purpose, such as to entertain, to describe, to explain, to discount a possible complaint, and so forth.

3.8 — EXTRA TIPS

1. **Mark up the keywords that form the premise/conclusion**

This table provides more examples of indicator phrases:

Premise Indicators

since	is implied by	as indicated by
because	given that	
for the reason that	in view of the fact that	
assuming	for granted that	
suppose	one cannot doubt that	

Conclusion Indicators

therefore	it follows that	that leads me to believe that
consequently	it shows that	in conclusion
thus	implies that	for this reason
this means	as a result	we can infer that
so	hence	accordingly
the moral is	means that can only be true if	

2. **Find the related ideas in the options (synonyms, categories, examples, extensions of the reason, further evidence)**

The start of a conclusion is often indicated by the word therefore, so, or thus. In addition to these conclusion indicators, the terms because and suppose-that signal that a reason is coming. Since the technical term for reasons is premises, the terms because and suppose-that are called premise indicators. The logical reasoner is always on the alert for premise indicators and conclusion indicators.

3. Make a value judgement as to which option it best supports

For certain types of Logical Reasoning questions, we recommend trying to make a specific answer prediction before heading to the choices. For Strengthen and Weaken questions, however, predictions aren't recommended.

There's usually a variety of possible strengtheners or weakeners for any given argument, and it's generally not a productive use of your limited time on Test Day to brainstorm about all the various possibilities.

Additionally, it can be all too easy to forget whether you're looking for a strengthener or a weakener, so it's helpful to simply remind yourself of the task before you start to evaluate the choices.

4. Weigh up the different factors (premise, conclusion, how many pillars it connects with)

When looking for an argument within a passage, you need to be alert that sometimes the conclusion is stated before the premises, sometimes after the premises, and sometimes embedded in the middle of the premises. Often, sentences are included that are neither premises nor conclusions; they are there for elaboration or for some other purpose, such as to entertain, to describe, to explain, to discount a possible complaint, and so forth.

? QUIZ

1. People work hard to provide for their basic needs, and food is the most critical of these.

Which one of these statements, if true, best supports the above claim?

A. For those who prepare meals primarily for consumption, it was a laborious and time-consuming process.

B. A person's freedom from dependence on restaurants and other establishments has been restored by advances in cooking technologies.

C. Food is required for the sustenance of daily life and fits under the most fundamental rung of Maslow's hierarchy of needs

D. One may argue that water is essential for all living things, since without water, you will perish.

2. Purchasing jewellery is a wise financial decision. Due to the restricted supply of precious stones, jewellery prices tend to rise with time.

Which one of these statements, if true, best supports the above claim?

A. A ticket cannot be kept to retain its worth or resold for money.

B. A piece of jewellery is usually a nice item to remember special occasions, such as a wedding anniversary.

C. Wearing appropriate and acceptable jewellery may set you apart from the crowd, making you feel more self-confident.

D. The value of pendants have increased more than the increase in the S and P 500 in the past hundred years.

3. The monarch butterfly caterpillar feeds on milkweed plants, which contain poisons that make the adult monarch toxic to many predators. The viceroy butterfly, whose caterpillars do not feed on milkweed plants, resembles the monarch in appearance. As a result, it is reasonable to assume that the viceroy is seldom preyed on because of his similarity to the king.

Which one of these statements, if true, best negates the above claim?

A. Most predators are poisoned by the viceroy butterfly.

B. Some predators may not respond negatively to insects that feed on milkweed plants.

C. There are only a handful of butterfly species whose main form of defense is toxicity to predators.

D. Viceroys are also preyed upon by several of the monarch butterfly's predators.

4. Bob says "The majority of individuals believe that all kinds of entertainment have an impact on society. Movies and television programmes, in my view, have a significant impact on how people behave." **Which one of these statements, if true, best negates the above claim?**

A. Films and television provide society with a lot of negative role models, which many people are willing to emulate.

B. Humans spend a lot of their time watching television.

C. Humans are creatures with free will and high levels of intelligence.

D. There are many shows on television that are unrealistic

Types of Logical Flaws

4.1 CAUSATION VS. CORRELATION

Causation is when one thing directly affects the other. Correlation is when two things have a similar trend but do not directly affect each other.

When we say correlation, there is any observed connection between two claims or two facts, particularly between two two sets of data or trend. For instance, if there were an observed upward trend in violent crime in a city, at a time when sales of violent computer games were on the increase, it would be right to say there was some correlation between two trends. Note that arguments or inferences that assume causal connections from correlations alone are generally flawed. A correlation does not always mean cause and effect. Sometimes two variables appear to correlate, but one does not lead to the other. The correlation might be coincidental or is caused by a third factor.

On the other hand, causation means that one event directly causes another to occur. The first variable may bring the second into existence or may cause the incidence of the second variable to fluctuate.

Causation is often confused with correlation, which indicates the extent to which two variables tend to increase or decrease in parallel. However, correlation by itself does not imply causation. There may be a third factor, for example, that is responsible for the fluctuations in both variables.

Here are some things you can apply to test the relationship between two variables:

- Describe a relationship between two variables.
- Identity statements consistent with the relationship between the variables.
- Identify valid conclusions about correlation and causation.
- Identify a factor that could explain why a correlation does not imply casual relationship.

In summary, correlation and causation is an important type of overlooked possibility, in which the arguer takes two things that happen at the same time (correlation) and concludes that one of those things caused the other (causation).

EXAMPLE

This season has been nothing short of a disaster for the Bulldogs. Following an atrocious 2-9 start, the Bulldogs' executive management opted to dismiss head coach Jason Biggums. The very following game, they defeated one of the league's top teams 23-2. Biggums clearly held the squad down, and the change of head coaches made all the difference.

Which of the following best describes the flaw in the above argument?

A. The apparent link between changing coaches and a victory might be a result of correlation rather than causality.

B. *The argument derives a broad conclusion from information regarding a single incident.*

C. *The argument anticipates a future occurrence based on past events that may or may not be related to the anticipated event*

D. *This is a judgement based on skewed or inadequate evidence.*

In this question, Students must identify which flaw is present in the stated argument. This is a perfect example of coincidental correlation, as the arguer assumes that just because head coach jason biggums was fired, that he was the only factor that held back the team from doing well. This is not the only factor involved in the team's performance and is not necessarily true. That is why A is the correct answer. This type of fallacy comes up A LOT in exams, and is incredibly important to learn how to identify it quickly and efficiently. The language in the final part of the question is a good clue as it is very definitive. *Biggums clearly held the squad down, and the change of head coaches made all the difference.* If you see this type of language in an argument flaw question, there's a good chance it's going to be correlation vs causation.

4.2 HASTY GENERALISATION

A hasty generalization is a claim based on a few examples rather than substantial proof. Arguments based on hasty generalizations often don't hold up due to a lack of supporting evidence: The claim might be true in one case, but that doesn't mean it's always true.

Hasty generalizations are common in arguments because there's a wide range of what's acceptable for "sufficient" evidence. The rules for evidence can change based on the claim you're making and the environment where you are making it — whether it's rooted in philosophy, the sciences, a political debate, or discussing house rules for using the kitchen.

Supposedly true

Declarative,

Imperative

This is a conclusion based on insufficient or biased evidence. In other words, you are rushing to a conclusion before you have all the relevant facts

EXAMPLE

"I drove a Toyota Camry and it broke down, therefore all Toyota Camrys are unreliable."

Which of the following best describes the flaw in the above argument?

This is a common format for hasty generalisations. 'I did or bought X, therefore all X's are _____'. As soon as you see this sort of language in a question you can be almost certain that it is a hasty generalisation. The answer will NEVER simply state 'the argument is flawed because the arguer made a hasty generalisation.' It will always be somehow related to the stimulus of the question (in this case Toyota Camrys). For example a correct answer to this question would look something like this:

'The arguer makes the mistake of assuming all Toyota Camry's are unreliable based off one bad experience"

Hasty generalisations are often tested, and are very important to know and be able to identify quickly.

4.3 CONFLATION

Conflation is the merging of two or more sets of information, texts, opinions etc. In simple terms, it refers to drawing inappropriate comparisons to two different ideas.

One could argue that conflation is synthesis. There is little in the standard definition to refute that. But the recent popularity of the term has more to do with its role as a **logical fallacy** than its dictionary definition.

As a **logical fallacy**, conflation differs from its standard dictionary entry in the implication that the combining of multiple parts is either unknown or done purposefully to confuse. It is typically what truly stands in contrast and opposition to real and meaningful analysis. Conflation then is very often a failure to analyze or at least analyze well. It is equally often a complete unawareness that further analysis is even required.

EXAMPLE

All Lions roar with power. Airplane engines also roar with power, therefore all aeroplane engines are lions.

'The airplane engine roared with power' is a common expression used in the English language. This argument purposely confuses a lion's roar with an airplane's engine's incredible noise and power to try and justify that since both objects 'roar' they must be the same.

4.4 EQUIVOCATION

Equivocation happens when a word, phrase, or sentence is used deliberately to confuse, deceive, or mislead. In other words, saying one thing but meaning another.

When it's poetic or comical, we call this a "play on words." But when it's done in a political speech, an ethics debate, or an economics report — and it's designed to make the audience think you're saying something you're not — that's when it becomes a fallacy.

The arguer uses a potentially ambiguous term in more than one sense and consequently misleads the audience.

Here is the common structure of equivocation:

- *Term X is used to mean Y in the premise.*
- *Term X is used to mean Z in the conclusion.*

EXAMPLE

I promised my mum I would never speak to my best friend again, and I didn't, I just texted them on my phone.

In this example we see that the arguer told his mum that he wouldn't 'speak' to his best friend but continued to text him. Obviously that means they are still speaking, but due to the use of ambiguous language and play on words, the arguer tries to convince the audience that they followed through on their promise to their mum. Equivocations don't show up TOO much in tests, because they're generally easier to spot than other fallacies, but students should still be very well versed in how to identify this flaw in an argument.

4.5 CAUSAL FALLACY

Causal fallacies are informal fallacies that occur when an argument incorrectly concludes that a cause is related to an effect. Think of the causal fallacy as a parent category for other fallacies about unproven causes. One example is the false cause fallacy, which is when you draw a conclusion about what the cause was without enough evidence to do so. Another is the post hoc fallacy, which is when you mistake something for the cause because it came first — not because it actually caused the effect.

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One example is the false cause fallacy, which is when you draw a conclusion about what the cause was without enough evidence to do so. Another is the post hoc fallacy, which is when you mistake something for the cause because it came first — not because it actually caused the effect.

4.6   SLIPPERY SLOPE

A slippery slope argument assumes that a certain course of action will necessarily lead to a chain of future events. The slippery slope fallacy takes a benign premise or starting point and suggests that it will lead to unlikely or ridiculous outcomes with no supporting evidence.

This is a conclusion based on the premise that if A happens, then eventually through a series of small steps, through B, C,..., X, Y, Z will happen, too, basically equating A and Z. So, if we don't want Z to occur, A must not be allowed to occur either.

EXAMPLE

Doug told me "If you don't brush your teeth every day, they will rot, and then no one will want to speak to you, and as a result, you'll never be able to get a job and end up living on the street."

Which of the following best describes the flaw in the above argument?

A. *The initial assertion is contradicted by the conclusion.*

B. *The argument does not give a convincing explanation for the benefits of brushing your teeth*

C. *The argument equates not brushing your teeth to living on the street and will set off a series of events, in spite of the fact that no logical proof was provided.*

D. *It draws from a sample that does not necessarily represent most opinions*

This example is a perfect example of the slippery slope fallacy. Just as the correct answer (option C) states, the arguer is equating not brushing your teeth to living on the street. This of course is highly illogical and is a common fallacy that pops up in selective exams. A clue to look for in the question, is a series of events that chain together. If you see a similarly structured question like the example above, it's a good chance it is the slippery slope fallacy.

4.7 AD HOMINEM ATTACK

An ad hominem fallacy uses personal attacks rather than logic. This fallacy occurs when someone rejects or criticizes another point of view based on the personal characteristics, ethnic background, physical appearance, or other non-relevant traits of the person who holds it.

The ad hominem fallacy occurs when someone attempts to discredit another's argument by mentioning disreputable aspects of the person's character, instead of focusing on what is wrong with the argument itself. Establishing, for example, that someone is a bully is not a good reason to conclude that their reasoning must be at fault. However, some personal characteristics (for example, a tendency to exaggerate, or a temporary or permanent mental incapacity) may be relevant to judgements about the reliability of information which others give us. But it is fallacious to claim that a particular conclusion does not follow from acceptable evidence or true reasons, simply on the grounds that the person drawing the conclusion has an unpleasant personality.

You can most easily observe an *ad hominem* attack when:

- An arguer criticizes someone's **actions** as a reason to not heed their argument.
- An arguer criticizes someone's **character** as a reason to not heed their argument.
- An arguer criticizes someone's **motives** as a reason to not heed their argument.

In conclusion, ad hominem attacks another arguer instead of the argument itself. The identity or motives of an arguer don't affect the validity of that person's argument.

EXAMPLE

"MacDougal likes Britain. Clearly he's unfit to be a police minister in Australia."

This is a perfect example of an ad hominem attack, and is yet another fallacy that students should be able to spot immediately. The arguer criticises MacDougal's beliefs and affection for Britain as a reason for him to be unfit as a police minister. This is completely illogical, as his

appreciation for Britain has nothing to do with his abilities or qualifications to be a police minister. Look out for PERSONAL attacks on beliefs, ideologies, character or appearance in questions, as it is a good sign of the ad hominem fallacy.
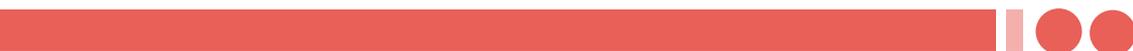
4.8 STRAWMAN ARGUMENT

A straw man argument attacks a different subject rather than the topic being discussed — often a more extreme version of the counter argument. The purpose of this misdirection is to make one's position look stronger than it actually is.

The straw man argument is appropriately named after a harmless, lifeless scarecrow. Instead of contending with the actual argument, they attack the equivalent of a lifeless bundle of straw — an easily defeated puppet that the opponent was never arguing for in the first place.

A strawman attack is a fallacious argument that distorts an opposing stance in order to make it easier to attack. Essentially, the person using the strawman pretends to attack their opponent's stance, while in reality they are actually attacking a distorted version of that stance, which their opponent doesn't necessarily support.

In general, the use of a strawman consists of the following three stages:

- First, person A states their position.
- Then, person B presents a distorted version of person A's original position, while pretending that there's no difference between the two versions.
- Finally, person B attacks the distorted version of person A's position, and acts as if this invalidates person A's original argument.

In conclusion, ad hominem attacks another arguer instead of the argument itself. The identity or motives of an arguer don't affect the validity of that person's argument.

Essentially, person B creates a *strawman*, which is a distorted version of their opponent's original argument, which makes it easier for them to attack their opponent's stance.

This means that there is a flaw in the premise of the strawman argument, since the stance that it addresses does not accurately reflect the stance that it was originally meant to address. As such, the strawman fallacy is considered to be a type of an *in*formal logical *fallacy*, and

specifically a type of a *relevance fallacy*, since the person using it is attacking a stance that is not directly relevant to the discussion at hand.

EXAMPLE

Here is an example of a strawman argument in the form a conversation between Two friends, Jill and Jenny

Jill: I prefer my hair to be dyed brown over black. It looks better in my opinion.

Jenny: Why do you hate black hair?! Are you saying I look bad because my hair is black?

Jenny's response is the perfect example of the straw man argument fallacy. Just because Jill prefers her hair to be dyed brown rather than black, it does not mean she hates black hair. Jenny has DISTORTED Jill's stance on her preference of hair colour and attacked her view with a completely irrelevant point that Jill never made nor implied.

4.9 RED HERRING FALLACY

A red herring is an argument that uses confusion or distraction to shift attention away from a topic and toward a false conclusion. Red herrings usually contain an unimportant fact, idea, or event that has little relevance to the real issue.

A red herring is an argument that uses confusion or distraction to shift attention away from a topic and toward a false conclusion. Red herrings usually contain an unimportant fact, idea, or event that has little relevance to the real issue.

Red herrings are a common diversionary tactic when someone wants to shift the focus of an argument to something easier or safer to address. But red herrings can also be unintentional. The first step to responding to a fallacious red herring is to recognize that a red herring has been used. You can do this by asking yourself whether the information that's been presented is relevant to the topic at hand, or whether it's meant to distract you or others from what's being discussed, often as a way to avoid a question or shift the discussion in a new direction.

When a red herring fallacy is used, you may:

- Point out the red herring fallacy
- Assess its claims
- Lastly, explain why it's fallacious

EXAMPLE

Here is an example of the red herring fallacy in the form of a conversation between a Mum and her son.

Mum: How did you go in the recent maths test? I hear the results were released today. Did you do well?

Son: The test was really hard! Everyone was struggling and mentioned how difficult it was once we came out of the exam room. I studied really hard for that test!
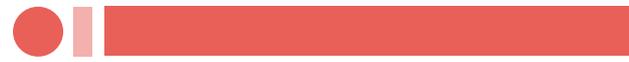
The son's response to his mum's question is a perfect example of the red herring fallacy. We can see in this example the son's response tried to distract his mum with information that is somewhat relevant to the topic of the conversation, but not an answer to the question she asked. Instead of saying what mark he got in the test, the son went on a tangent to explain how difficult the test was, and that he studied hard for it. The red herring is frequently tested, and is an important fallacy to be able to identify quickly and efficiently. Look out for 'dialogue' questions that ask to identify flaws in a person's argument as these types of questions commonly contain red herring fallacies.

4.10 BANDWAGON FALLACY

Because everyone says so, it must be true. The bandwagon fallacy assumes something is true (or right or good) because others agree with it. In other words, the fallacy argues that if everyone thinks a certain way, then you should, too.

One problem with this kind of reasoning is that the broad acceptance of a claim or action doesn't mean that it's factually justified. People can be mistaken, confused, deceived, or even willfully irrational in their opinions, so using them to make an argument is flawed.

Bandwagon fallacy is a logical fallacy that is based on the assumption that something must be true or good if it's in accordance with the opinions of many others. It's an extremely common error and can be committed either unintentionally or on purpose. "It's true because I know a lot of people who think so too!" is the grounds of this fallacy.

Here is an example of bandwagon fallacy structure:

- X is popular.
- Popular things are always true (unstated).
- Therefore, X is true.

The bandwagon fallacy belongs to the category of *informal fallacies*, as well as its sub-category called *fallacies of relevance*.

- ***Informal fallacies*** refer to arguments containing irrelevant or invalid evidence that renders the conclusion incorrect. They stem from an error in reasoning rather than from an error in the logical structure of the argument.
- ***Fallacies of relevance*** occur when the evidence of an argument is not relevant to the conclusion, and thus doesn't provide adequate reasons to believe its truthfulness.

The IPhone is the most popular phone on the planet. The sales figures reflect this, and pretty much everyone I know has one. It must be the best phone that's available and is certainly the best choice for anyone looking for a new phone.

The argument above is a great example of the bandwagon fallacy. Just because IPhone sales figures are extremely high and it's the most popular phone on the planet, it doesn't mean it's the BEST phone. Each individual has different needs, and may be suited to a different product based on these needs. The argument doesn't take into account any factors except popularity of the product, and presents that as the sole evidence to why the IPhone is the best phone on the market. This is flawed reasoning, and a perfect example of the bandwagon fallacy.

QUIZ

If you were a real Australian, you would defend people's freedom to drive any car they chose.

Which of the following best describes the flaw in the above argument?

- *This is an attack on the character of Australians, not on their ideas or positions.*
- *The argument is highly reliant on using emotion to make its point.*
- *This is an argument that conveys what the majority of Australians believe in order to persuade others to believe the same way.*
- *This argument conveys that if people don't have freedom, Australia will perish.*

4.11 CIRCULAR ARGUMENTS

Circular arguments occur when a person's argument repeats what they already assumed before without arriving at a new conclusion. For example, if someone says, "According to my brain, my brain is reliable," that's a circular argument.

Circular arguments often use a claim as both a premise and a conclusion. This fallacy only appears to be an argument when in fact it's just restating one's assumptions.

Circular reasoning occurs when someone makes an argument in which both the premises and the conclusion have to rely on the truthfulness of the other.

As such, the logic of it goes:

- A is true because B is true;
- B is true because A is true.

Circular arguments can be quite easy to identify when they are short and it's clear what the person is trying to convey. However, if the argument involves multiple, more complicated concepts, it becomes increasingly difficult to recognize them.

EXAMPLE

An incredibly popular example of a circular argument comes from Joseph Heller's novel 'Catch-22'. Within the story, soldiers are told that 'to get out of combat, you have to be considered crazy. But anyone who wants to get out of combat isn't crazy.' So essentially, it's never possible for any soldier to get out of combat. It's important to recognise that the end of the argument almost always

4.12

APPEAL TO AUTHORITY

An appeal to authority implies that the argument is reliant on individuals of a relatively high status rather than actual evidence.

In addition, an **appeal to authority** fallacy, also known as *argument from authority*, is a type of logical fallacy that refers to the different ways of fallaciously using the statements or opinions of authority figures in order to support a conclusion. For instance, someone may assume that something must be true if a so-called expert believes it to be true, and no other evidence is needed.

Relevant experts can provide us with strong reasons to believe that something is true due to their experience, training, knowledge, and access to more information. They are able to evaluate information better and put more compelling evidence and arguments together than a non-expert could. Consequently, when someone makes a claim that is in accordance with the views of the experts, it's also supported with all the evidence the experts are relying upon.

As such, there are certain requirements that should be met for an *argument from authority* to be legitimate:

- The authority is an acknowledged expert in the field under consideration.
- The statement of the authority is relevant to their field of expertise.
- There is a general agreement among experts in the field under consideration.

Here is a common structure used for this fallacy:

- Authorities on a certain issue are usually correct.
- Authorities on the issue have a general agreement that X is correct.
- X is likely correct.
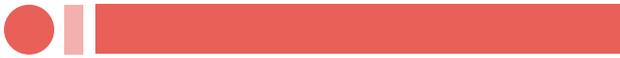
Brad Pitt runs 10km per day. That means that in order to lead a happy and successful life like he does, you must run 10km per day.

This argument relies on an 'appeal to authority', in this case being a well known celebrity, who has incredibly high socioeconomic status and is generally considered to be happy and highly successful. It uses that status that Brad Pitt holds to make the argument that just because he runs 10km per day, it is the key to being happy and successful. This is not the case, as Brad Pitt is successful for many different reasons that are most likely completely unrelated to how much he runs every day. Although that may be a contributing factor, it is not the defining reason for his success and nor will it lead other people to the same success he has achieved.

4.13 APPEAL TO IGNORANCE

An appeal to ignorance (also known as an "argument from ignorance") argues that a proposition must be true because it has not been proven false or there is no evidence against it.

As mentioned above, one falls victim to this fallacious line of reasoning when they assert that a claim must be true if it hasn't been proven false, or false if it hasn't been proven true.

Ignorance, or the lack of opposing evidence, is the main premise for the argument, hence the name "appeal to ignorance".

There are two logical forms for this argument, depending on if the argument is affirmative or negative. The affirmative claim asserts that a particular conclusion must be true since there is no evidence against it, and a negative one declares a conclusion false due to the same reason.

Affirmative form:

- There is no evidence against X.
- Therefore, X is true.

Negative form:

- There is no evidence to support Y.
- Therefore, Y is false.

The reality is that appealing to ignorance doesn't provide any real evidence — it only points out that we do not know something. If this type of argument was valid it could be used to support two opposing arguments, which is a clue that it is based on flawed reasoning. For example, "you cannot prove that ghosts don't exist, therefore they must exist" or "you cannot prove that ghosts exist, therefore they don't exist".

Furthermore, this fallacy frequently appears together with the burden of proof: the person

appealing to ignorance erroneously assumes that their opponent has the obligation to justify the opposing claim.

The argument can be used to bolster multiple contradictory conclusions at once, such as the following two claims:

EXAMPLE

"No one has ever been able to prove that extraterrestrials exist, so they must not be real."
"No one has ever been able to prove that extraterrestrials do not exist, so they must be real."
Both of these statements are an example of the 'appeal to ignorance' fallacy. Just because nobody has proven something exists, it doesn't mean that they certainly do NOT exist. Similarly, just because someone hasn't proved something doesn't exist, it does not mean that they certainly DO exist.

4.14 FALSE DILEMMA

A false dilemma or false dichotomy presents limited options — typically by focusing on two extremes — when in fact more possibilities exist. Do not be limited by the information in the text

The false dilemma fallacy is a manipulative tool designed to polarize the audience, promoting one side and demonizing another. It's common in political discourse as a way of strong-arming the public into supporting controversial legislation or policies.

Accordingly, it's also known as the **either-or fallacy**, *all-or-nothing fallacy*, and *black-and-white thinking*. Furthermore, it's frequently characterized by "either-this-or-that" type of language, implying that if one of the choices is true, the other one must be false, or if you don't accept one, the other must be accepted. In reality, however, both of the options may be false or could be accepted at the same time.

EXAMPLE

"America: Love it or leave it".

This argument is presenting two options, to either love America or leave the country. This is very misleading as there are many OTHER options that don't involve either of those scenarios. You could simply be content with living in America, and be willing to put up with the downfalls of the country. Living in a country doesn't mean you have to LOVE it, and not want any changes to happen for example in policies, laws etc.

We can either start using sustainable energy sources or destroy the earth.

Which of the following best describes the flaw in the above argument?

A. It assumes that a sequence of events will inevitably occur.

B. This is an oversimplified conclusion that reduces the debate to simply two sides or options.

C. It draws from a sample that does not necessarily represent most opinions.

D. The initial assertion is contradicted by the conclusion.

4.15 SYLLOGISTIC FLAW

A syllogistic logical flaw is one that breaks the logic by confusing sufficiency with necessity.

When logical fallacies occur in the syllogisms of deductive reasoning. This occurs with a reference to something general, and then makes a conclusion about something more specific. A syllogism is an argument that has a major premise, a minor premise and a conclusion, and often appears in the form 'A is B, C is D, therefore E is F'. This is a specific form of argument with very specific rules that are easy to break. In many ways, syllogistic fallacies are the 'classic' form of fallacy.

X is Y does not necessitate that Y is X.

How to create a contrapositive:

1. Invert the order (switch the left with the right, switch the right with the left)

2. Negate (positive becomes negative, negative becomes positive)

Formula: A+ -> B+

(flip and negate)

-B -> -A

Sufficiency or Necessity?

- Sufficiency (if, when, where etc. - does not exclude)

Example: Steven will get fit if he goes to the gym - Contrapositive -> If Steven does not go to the gym, he will not have gotten fit. (It is possible for Steven to get fit without going to the gym)

- Necessity (only, only if, must etc. - excludes other possibilities)

Steven will get fit only if he goes to the gym - Contrapositive -> Only if Steven does not go to the gym, he will not have gotten fit. (It is not possible for Steven to get fit without going to the gym)

QUIZ

1. "If you are a tall person, you are good at basketball"

If this is true, which of the following statements must also be true?

A. If you are not tall, you can be good at basketball

B. If you are tall, you can be good or bad at basketball

C. If you are not good at basketball, you are not tall

D. If you are not good at basketball, you can be tall

2. "If you go camping, you are a lover of the outdoors."

If this is true, which of the following statements must also be true?

A. If you are not a lover of the outdoors, you don't go camping.

B. If you are a lover of the outdoors, you might go camping.

C. If you are not a lover of the outdoors, you sometimes go camping.

D. If you are not a lover of the outdoors, you go camping.

3. "All good Cellos are made from Rosewood"

If this is true, which of the following statements must also be true?

A. If a Cello is not made from Rosewood, it is good.

B. If a Cello is not made from Rosewood, it isn't good.

C. If a Cello is made from Rosewood, it might be good.

D. If a Cello is made from Rosewood, it isn't good.

Logic Games

1

Five athletes Kevin, Allan, Achilles, Peter and Justin were in a race. Justine finished before Achilles but after Peter. Kevin finished before Allan but after Justine. In which order did they complete the race if Achilles finished before Allan?

A. Peter, Justine, Achilles, Kevin, Allan

B. Justine, Peter, Kevin, Achilles, Allan

C. Peter, Justine, Kevin, Achilles, Allan

D. Peter, Justine, Achilles, Kevin, Allan

2

Some students are walking towards the dining hall in rows. One student is ahead of five students. Two students are behind four students. How many students are there?

A. 8

B. 12

C. 7

D. 6

3

Four people Harris, Dormy, Cherry and Eunice would like to cross a river at night. Each one of them can take 1 minute, 4 minutes, 5 minutes and 6 minutes respectively to cross the river at night. They have one-touch, which lasts for 19 minutes, to cross the river. Not more than two people can cross the river at the same time and they can only go at the pace of the slower person. If they have to take the possible minimum time, whom should Eunice cross with?

A. Dormy

B. Cherry

C. Harris

D. Alone

4

Olivia, Eva and Oliver each have an orange. Each cuts half of owns a share and gives Liam. How much more oranges does Liam have than what Olivia, Eva and Oliver have in total?

A. 0

B. 1/2

C. 1

D. 3/2

5

A class has 12 boys and 13 girls. If some students are selected at random to represent a class in a competition, what is the least number of students that 100% ensure that at least 3 students are boys?

A. 3

B. 9

C. 16

D. 15

6

Four people, K, L, N and M are sitting around a table. L is in the opposite direction of K while N is in the opposite direction of M. If N is next to K to the right, who is next to N to the left?

A. L

B. M

C. K

D. N

7

 A road has a T junction where one route leads to the town of truth and another to the town of lies. In the town of truth, all people say the truth while in the town of lies, everybody says lies. A visitor going to the town of truth, however, is not sure which direction he should take. While at the junction, he asks a residence a route he should take to the town of truth. If the residence directs him to use the route to the town truth, in which town is the residence?

A. Town of Truth

B. Town of lies

C. Either the town of truth or the time of lies

C. Not enough information

8

Philemon has some pieces of candies while his friends Alex and Hellen have none. He gives 3 to Alex and 3 to Hellen. Hellen gives one to Alex and one back to Philemon then Alex gives back 2 pieces of candies to Philemon and 2 to Hellen. If Philemon has 5 pieces of candies now, how many did he have initially?

A. 9

B. 6

C. 7

D. 8

9

Three Kids, X, Y and Z are playing the game of covering one's eyes. Y covers those of Z who covered those of X. Y is a girl while X is a boy. Is a girl covering the eyes of a boy?

A. Yes

B. No

C. Not enough information

D. It depends on the gender of Z

10

I think of a two-digit number whose sum of digits is 8. If the digit comes before a square of an integer, what is the digit?

A. 24

B. 35

C. 48

D. 26

11

It takes 2 hours for a school shirt to dry on a sunny and windy day. Sophia has 4 similar shirts and the day is sunny but not windy. How long would it take for all the shirts to dry?

A. 8 hours

B. 2 hours

C. 1.8 hours

D. 2.3 hours

12

Eva takes at most 10 minutes to walk to school while her little sister takes at most 16 minutes to walk to the same school using the same route. Eva decides to move along with her little sister to school. How long does it take them to reach the school?

A. 10 minutes

B. 26 minutes

C. 16 minutes

D. 13 minutes

13

Six athletes, Justin, Bolt, Akani, Andre, Bromel and Blake take different tracks for a 100m race. They use track numbers 1 to 6. Bolt is to the right of Justin and the left of Akani. Andre is to the left of Justin and Akani. Bromel is to the right of Akani and Blake. Which two athletes will be at the ends of the other others.

A. Blake and Andre

B. Bromel and Justin

C. Andre and Bromel

D. Blake and Justin

14

Five days before the day after tomorrow was Thursday. What is the day today?

A. Sunday

B. Saturday

C. Monday

D. Tuesday

15

Four people, Pauline, Olivia, Christine and Susie would like to cross a river at night. Each one of them can take 2 minutes, 3 minutes, 5 minutes and 7 minutes respectively to cross the river at night. They have one-touch, which lasts for 16 minutes, to cross the river. Not more than two people can cross the river at the same time and they can only go at the pace of the slower person. If they have to take the possible minimum time, whom should Christine cross with?

A. Alone

B. Susie

C. Olivia

D. Pauline

16

Six people Alexander, Paul, Kenneth, Brian, Larry, Frank are attending the graduation party. Among them, three are graduands and their parents which have been leading them throughout their education.

i). Paul, Brian and Frank have been wearing the graduation attire since the beginning of the party

ii). Kenneth and Brian are not related

iii). Alexander, Brian and Frank have never met before

Identify a parent and his child in that order.

A. Frank: Larry

B. Larry: Brian

C. Kenneth: Frank

D. Alexander: Brian

17

Eveline, Emily, Mia, and Abigail are High school teachers. Among them, there are Math, English, Physics and Chemistry teachers. Emily and Mia are younger than the math teacher. Abigail is older than the English and Physics teacher. Abigail and Mia are good friends to the math teacher. The English teacher's desk is between that of Emily and Evaline. Who are the math and English teachers respectively?

A. Mia and Abigail

B. Evaline and Mia

C. Evaline and Emily

D. Emily and Abigail

18

I think of a two-digit odd number which is also a square of a number. The number is nearer the closest multiple often more than it as it is to the closest multiple of ten less than it. What is the number?

A. 49

B. 81

C. 25

D. 75

19

Richard and Karen decided to play badminton against each other. Each person bets $2 for each game they play. Richard won 5 games and Karen won $4. How many games did they play?

A. 7

B. 12

C. 9

D. 14

20

In a zoo, a Monkey lies on Monday and Thursday while a Hare lies on Wednesday and Saturday. "I said the truth the last two days", the Hare says while the Monkey says, "I will lie tomorrow". Which day is today?

A. Saturday

B. Tuesday

C. Thursday

D. Wednesday

21

A group of students is playing along the shores of the beach. The students want to find out the maximum number of footprints each can make within a 10.2 m stretch. If each student is supposed to make 1 m footstep throughout the stretch, how many footsteps are realized?

A. 19

B. 20

C. 18

D. 21

22

Four people are strolling on their way to the beach. Pauline is on the left James and to the right of Alice. Austin is to the left of James and to the right of Alice. Which person is the right of the other three?

A. Austin

B. James

C. Alice

D. Pauline

23

A bucket has 4 green, 5 yellow and 3 blue tennis balls. Find the least number of tennis balls that should be chosen to 100% ensure that at least a blue tennis ball is selected.

A. 10

B. 9

C. 8

D. 12

24

A mountain climber in the company of two other climbers notices a climber ahead of them. The climber in the front sees four other climbers behind. How many climbers were there?

A. 4

B. 7

C. 8

D. 5

25

Doris asks Pamela to predict a four-digit number.

Pamela: 7219

Doris: Wrong. Only two digits are correct but one is in the wrong position

Pamela: 8739

Doris: Three digits are right but one is in the wrong position

Pamela: 8749

Doris: All digits are right but two are in the wrong position. What is the four-digit number?

A. 8794

B. 7849

C. 4879

D. 4789

26

Olivia thinks of a two-digit number. The number follows an even number that is divisible by 4. The number is prime. The sum of the digits is 4. If the number is less than 40, what is the number?

A. 22

B. 13

C. 31

D. 23

27

Four days after the day after tomorrow is Wednesday. What is the day today?

A. Friday

B. Thursday

C. Saturday

D. Wednesday

28

Jane exercises on Monday, Wednesday and Friday. Today, he is exercising, however, fours days after tomorrow, she will not be exercising. What day is today?

A. Monday

B. Friday

C. Sunday

D. Wednesday

29

A farmer would like to ferry a Jackal, a goat, and some Napier grass across the river. But he cannot ferry all of them at a time because the boat can only carry him and either a Jackal, a goat, or the Napier grass. If he leaves the goat and the Napier grass alone, the goat will eat the grass and if he leaves the Jackal and the goat alone, the Jackal will eat the goat. For him to ferry the three, which one should he ferry first?

A. Jackal

B. Napier grass

C. Goat

D. It is impossible

30

30. A rope takes 40 minutes to burn up. If both ends of the rope are lighted, how long does it take for the rope to remain half?

A. 20 minutes

B. 40 minutes

C. 5 minutes

D. 10 minutes

Logical Statements

1

The recruitment process of the HR department has been completed and their training sessions will commence from next week. All trainees are newly hired. All newly inducted employees are highly qualified.

If the information is true, whose reasoning is correct?

A. All employees in training are highly qualified.

B. None of the employees in training is highly qualified.

C. Some of the employees in training are not highly qualified.

D. Some of the employees in training are highly qualified.

2

No women teacher can play. Some women teachers are athletes. Some athletes can play.

If the information is true, whose reasoning is correct?

A. Some male athletes can play.

B. All athletes can play.

C. Both A & B.

D. None of the above.

3

All bananas are golden in colour, no golden-coloured things are cheap.

If the information is true, whose reasoning is correct?

A. All bananas are costly.

B. Golden-coloured bananas are cheap.

C. Both of them.

D. Neither of them.

4

Some kings are queens. All queens are beautiful.

If the information is true, whose reasoning is correct?

A. All kings are beautiful.

B. All queens are kings.

C. Both of them.

D. Neither of them.

5

Smith is elder than David but younger than Danial. Steve is the youngest.

If the information is true, whose reasoning is correct?

A. Danial is the eldest.

B. David is younger than Steve.

C. Both of them.

D. Neither of them.

6

In a family, there are a husband-wife, two sons and two daughters. All the ladies were invited to the dinner. Both sons went out to play. Husband didn't return from the office.

If the information is true, whose reasoning is correct?

A. Only wife was at home.

B. Nobody was at home.

C. Only sons were at home.

D. All ladies were at home.

7

Fact A: All chickens are birds.

Fact B: Some chickens are hens.

Fact C: Female birds lay eggs.

If the information is true, whose reasoning is correct?

A. Female chickens lay eggs.

B. Hens are birds.

C. Some chickens are not hens.

D. None of the above.

8

Some pens don't write. All blue pens write. Some writing utensils are pens.

If the information is true, whose reasoning is correct?

A. Some writing utensils don't write.

B. Some writing utensils are blue.

C. Some blue writing utensils don't write.

D. Both A & B.

9

All dogs like to run. Some dogs like to swim. Some dogs look like their master.

If the information is true, whose reasoning is correct?

A. All dogs who like to swim look like their masters.

B. Dogs who like to swim also like to run.

C. Dogs who like to run do not look like their masters.

D. None of the above.

7

Fact A: All chickens are birds.

Fact B: Some chickens are hens.

Fact C: Female birds lay eggs.

If the information is true, whose reasoning is correct?

A. Female chickens lay eggs.

B. Hens are birds.

C. Some chickens are not hens.

D. None of the above.

10

Steve has four vehicles. Two of the vehicles are white. One of the vehicles is a mini-van.

If the information is true, whose reasoning is correct?

A. Steve has a white mini-van.

B. Steve has three cars.

C. Steve favourite colour is white.

D. None of the above.

11

The legs of most dachshunds are less than four inches long. The majority of dachshunds have a long face. Long-faced animals make excellent pets. If an animal's legs are fewer than four inches long, it will be unable to run quickly. Some animals are friendly to people.

If this is true, which of the following statements must also be true?

A. Most animals are friendly.

B. Most great pets have long faces.

C. Some animals with legs less than 4 inches long have long faces.

D. Most animals with long faces are Dachshunds

12

If a ruling party reduces unemployment while also preventing major terrorist attacks, the party's reign will be maintained. Even if a ruling party does not sustain high levels of government spending, it can nonetheless hold power. Although the present ruling party has not maintained significant levels of government spending, it has managed to avert major terrorist attacks.

If this is true, which of the following statements must also be true?

A. If the present administration reduces the unemployment rate, then it will maintain power.

B. The current ruling party will not maintain power.

C. The current ruling party has reduced the unemployment rate.

D. If the ruling party keeps inflation low, then it will maintain power.

13

Every teacher expects his or her students to complete their assignments. Detention is given to any student who does not complete their assignment. Detention students are not permitted to participate in school sporting events. Weekends are reserved for all school sporting events.

If this is true, which of the following statements must also be true?

A. Every student that does not complete their homework cannot participate in weekend sporting events.

B. No student that has completed their homework serves detention.

C. Every student that meets their teachers' expectations can participate in weekend sporting events.

D. No student that serves detention has violated their teachers' expectations.

14

If an artist is entirely committed to succeeding, he or she will create works of art that are inspirational. A work of art, on the other hand, cannot be inspirational unless it originates from the artist's soul. When art is founded on the artist's primary passions or desires, it originates from the depths of the artist's soul - and only then.

If this is true, which of the following statements must also be true?

A. A work of art will likely be inspirational unless it is not based upon the chief passions or desires of the artist.

B. Any art that is based upon an artist's chief passions or desires is inspirational.

C. If an artist creates no art based upon his or her primary passions or desires, he or she is not fully motivated to succeed.

D. If a work of art comes from the depths of the artist's soul, it is inspirational unless the artist is not fully motivated to succeed.

15

Almost all correctly addressed mail reaches its intended recipient within two business days after being dispatched. In reality, only when properly addressed mail is destroyed in transit, it take longer. Most mail, on the other hand, takes three business days or longer to arrive.

If this is true, which of the following statements must also be true?

A. A large proportion of the mail that is correctly addressed is damaged in transit.

B. No incorrectly addressed mail arrives within two business days of being sent.

C. Most mail that arrives within two business days of being sent is correctly addressed.

D. More mail arrives within two business days of being sent than arrives between two and three business days after being sent.

16

The number of yoga studios in urban areas is rapidly increasing. Major yoga apparel distributors have reaped the benefits, from 2007 to 2014, yoga retail sales increased by 25%. According to a recent study, 90% of people who bought yoga gear said they went to yoga courses at least twice a month.

If this is true, which of the following statements must also be true?

A. There has been a 25% increase in the number of yoga studios in urban centres.

B. People who attend yoga classes are more likely to buy yoga apparel.

C. There is a correlation between the increase in yoga studios and the increased sales of yoga apparel.

D. There was not an increase in the sale of yoga apparel before 2007.

17

The majority of fast-food restaurants are low-cost establishments that sell unhealthy cuisine. Furthermore, all restaurants that provide unhealthy cuisine offer subpar service. The public generally dislikes restaurants that provide bad service.

If this is true, which of the following statements must also be true?

A. All fast-food restaurants that serve unhealthy food are disliked by the general public.

B. Most restaurants that are disliked by the general public are inexpensive restaurants.

C. Some restaurants are both inexpensive and provide poor service.

D. Most fast-food restaurants are disliked by the general public.

18

Athletes put forth a lot of effort to reach the elite level, which most of them will never achieve. Despite the fact that their efforts, struggle, and determination are usually extreme, they are widely seen as failures.

If this is true, which of the following statements must also be true?

A. Many athletes do not show much determination to reach the top.

B. Work, effort, and determination are personality traits that cannot be taught.

C. Only a handful of athletes can be considered elite at any one time.

D. The amount of work an athlete puts in has no bearing on their ultimate success.

19

The study of small groups in the workplace has yielded vital insights into how leadership is defined in the workplace. The individual with the most project experience or knowledge does not automatically become the project's leader; instead, he or she must regularly take a backseat to the person who is the loudest and most forceful in guiding others' actions.

If this is true, which of the following statements must also be true?

A. A workplace situation is not an ideal environment in which to study leadership abilities.

B. Workplace leadership is not easy to identify or comment on as a definable characteristic.

C. Leadership qualities are directly tied to experience and knowledge.

D. The most experienced and knowledgeable people do not always assert themselves as leaders.

20

I would not have been able to buy groceries for dinner if all stores were closed on Christmas Day. The children would have wailed if I had been unable to purchase groceries. Fortunately, none of the youngsters cried in the end.

If this is true, which of the following statements must also be true?

A. None of the stores remained open on Christmas Day.

B. No stores closed on Christmas Day.

C. Some stores remained open on Christmas Day.

D. If any of the children cried that night, I had been unable to buy groceries.

21

The vast majority of film critics despise Hollywood blockbusters. A snob is someone who dislikes Hollywood blockbusters. The majority of adults over fifty despise Hollywood blockbusters. Some of those who despise Hollywood blockbusters are major theatre buffs. Large explosions are enjoyed by those who do not despise Hollywood blockbusters.

If this is true, which of the following statements must NOT be true?

A. The majority of film critics are snobs.

B. Some film critics are theatrical aficionados.

C. Some of those who despise Hollywood blockbusters are in their fifties.

D. The majority of persons over fifty are snobs.

22

Every scientist is a hard worker. Some studious people are wealthy. When someone is wealthy, they can live comfortably. The majority of studious persons have difficulty concentrating.

If this is true, which of the following statements must NOT be true?

A. Some studious people are scientists.

B. Some people who have trouble focusing are studious.

C. All people who are rich are able to live comfortably.

D. Some scientists are rich

23

All excellent deeds share two characteristics. They are, first and foremost, accompanied by sentiments of fulfillment. Second, if they are widely known, they are met with widespread approval.

If this is true, which of the following statements must NOT be true?

A. A good deed is any public act that is accompanied by sentiments of satisfaction.

B. Excellent deeds are good merely because they result in emotions of fulfilment.

C. Some excellent deeds that are not widely publicised are not accompanied by emotions of fulfilment.

D. Some well-known actions that gain widespread praise are not accompanied by emotions of fulfilment.

24

Many first-time house buyers believe that making mortgage payments is definitely more profitable than paying rent. However, other expenses including maintenance, property taxes, and insurance must be considered. Most homeowners' housing costs account for at least 40% of their income. It is not financially sensible to spend more than 30% of one's income on housing costs. If this is true, which of the following statements must NOT be true?

A. The combination of property taxes, insurance, and home maintenance costs is greater than mortgage payments for a minority of homeowners.

B. A minority of homeowners have unreasonable housing expenses.

C. A minority of homeowners have reasonable housing expenses.

D. A majority of renters pay an unreasonable amount for housing expenses.

25

With each passing year, fewer individuals go without email. Not only are more and more children creating their own accounts, but the age that was mostly too elderly and out of touch to have ever had one is gradually fading. Within the next ten years, it is quite unlikely that anyone over the age of ten will be without an email account. If this is true, which of the following statements must NOT be true?

A. Older generations are much more likely than younger ones to adopt new forms of communication.

B. An email is a pervasive form of communication that is used by many different people.

C. Many younger people use many more communication methods than strictly email.

D. Older generations find email to be an awkward form of communication compared to letters and the telephone.

26

Over the previous month, the price of a barrel of crude oil has dropped 15%. Over the same time period, economists point to various explanations, including the finding of new oil reserves, the improved accessibility of alternative fuels, the rise of mass transit, the reduction of automobile sales, and the increase in non-fuel-consuming modes of transportation, such as bicycles.

If this is true, which of the following statements must NOT be true?

A. People are more likely to purchase new cars if the price of oil is low.

B. The discovery of new reserves of oil has increased the supply, created a surplus, and thus driven the price of oil down.

C. If they have access to both, some people would rather use alternative sources of fuel instead of oil.

D. The growth of mass transit systems, which transport more people and use less fuel, has reduced demand for oil and driven the price of oil down.

27

Dogs are the most common four-legged domesticated animals. All dogs are kept as pets. The school does not accept pets inside the building. On school grounds, all domesticated animals must be leashed. Pets include all domesticated animals.

If this is true, which of the following statements must NOT be true?

A. A dog is permitted near school property.

B. A domesticated animal that is not a dog is permitted inside the school building.

C. A four-legged, non-domesticated animal is allowed inside of the school property.

D. A domesticated animal that is not a dog is leashed on school property.

28

The ability to create variants on a topic is at the heart of creativity. Every thought, for example, is constructed upon a thousand related ideas, as we can see from the history of science. A careful examination reveals that what we call a new topic or a new discovery is, on a deep level, always and without exception, some form of variation of prior themes. If this is true, which of the following statements must NOT be true?

A. A lack of ability to manufacture a variation on a previous theme means a lack of creativity.

B. No scientific idea is entirely independent of all other ideas.

C. Careful analysis of a specific variation can reveal previous themes of which it is a variation.

D. All great scientific discoveries have been able to manufacture a variation on a theme.

29 Some of the justifications for increasing oil output in the United States are incorrect. Within fifty years, automobiles that do not burn gasoline will be widely available, and vehicles that do not burn gasoline do not necessitate oil production. Furthermore, any gains from increased oil production in terms of job creation would be outweighed by the negative economic effects of producing a product that will not be in demand. Increased development of oil alternatives, on the other hand, can produce jobs.

If this is true, which of the following statements must NOT be true?

A. Production of alternatives to oil will create as many jobs as the increased production of oil.

B. Current oil production will meet the demand for oil over the next fifty years.

C. When vehicles that do not burn gasoline are readily available, they will be used exclusively.

D. Oil consumption causes substantial environmental harm.

30

Scholar: Journalists are typically low-paid employees who struggle to fulfill deadlines. Their editors are more concerned with whether or not the story will sell than with its accuracy. As a result, readers should be dubious of the authenticity of the majority of newspaper articles.

If this is true, which of the following statements must NOT be true?

A. Time pressure incentivizes journalists to cut corners and exclude certain facts they could not research in time.

B. Lower paid professions tend to attract less qualified people who do not have the necessary background to effectively research a complex issue.

C. Many readers feel like they are not being given the whole story when they read newspaper articles.

D. Articles that are most popular with readers tend to be sensationalist and lack accuracy.

Strengthen Critical Reasoning

UNIT 7

1 Most heavy traffic would be compelled to run outside highways if highways were confined to vehicles and only trucks with a capacity of fewer than 8 tonnes. The probability of collisions on highways would be reduced as a result of a reduction in heavy traffic.

Which one of these statements, if true, best supports the above claim?

A. Trucks with a payload capacity of fewer than 8 tonnes are extremely safe to drive on highways.

B. Rather than being banned from roadways, many truck drivers would prefer to buy vehicles with a capacity of fewer than 8 tonnes.

C. In recent years, the number of collisions near highways has decreased.

D. Because of rapid increases in car traffic, highways are experiencing overcrowding.

2 Many commercial offices are housed in multi-story buildings with two to eight levels. A lift is present in a building with more than three stories.

Which one of these statements, if true, best supports the above claim?

A. There are no lifts on the second floor.

B. There are lifts on the 7th and 8th floors.

C. Lifts are only available on floors above the third.

D. Lifts are available on several floors above the fourth.

3

Consumers are in the mood to spend after one of the hottest winters on record. Spending is expected to be at its highest level in thirteen years. Existing single-family home sales reached a new high of 4.75 million in February, setting an annual record.

Which one of these statements, if true, best supports the above claim?

A. In thirteen years, consumer spending will be more than it is now.

B. In February, more people purchase homes than in any other month.

C. During February, there were around 4 million properties for sale.

D. The rate of home sales is likely to be affected by the warm winter weather.

4

There's no need to substitute for a health club if you're a fitness walker. Your community can serve as a fitness centre. You also don't need much in the way of sophisticated equipment to get a solid exercise. All you need are some well-made athletic shoes.

Which one of these statements, if true, best supports the above claim?

A. A health club membership is a bad investment.

B. Walking outside provides a more effective workout than walking inside.

C. Walking for fitness is a practical and beneficial kind of exercise.

D. Walking for fitness is a better kind of exercise than lifting weights.

5

In the case of the 1987 supernova, there is still no evidence of the neutron star that, according to current theory, should have remained after such a massive explosion. Despite the fact that several of the most sensitive detectors ever constructed have searched for the tell-tale radiation pulse that neutron stars release, this remains the case. As a result, the existing assumption that supernovas of a certain size invariably create neutron stars is incorrect.

Which one of these statements, if true, best supports the above claim?

A. Most supernova remnants discovered by astronomers contain a neutron star nearby.

B. Highly sensitive astronomical instruments have discovered neutron stars far further away than the 1987 supernova's location.

C. The 1987 supernova was the first that astronomers were able to see in real-time.

D. The current theory correctly predicts some key features of the 1987 supernova.

6

Toxic substances included in wood smoke cause alterations in human cells. Because wood smoke is such a health hazard, legislation is required to limit the use of open-air fires and wood-burning stoves.

Which one of these statements, if true, best supports the above claim?

A. Smoke concentrations in valleys where wood is the primary heating fuel result in poor air quality.

B. The amount of harmful chemicals in wood smoke is substantially lower than the amount in an equivalent volume of automotive exhaust.

C. Coal-burning stove smoke is significantly more harmful than smoke produced by wood-burning stoves.

D. If open-air fires were prohibited in the area covered by the proposed legislation, there would be no significant improvement in air quality.

7

Many people believe that employees should be required to participate in physical activity in order to increase their work efficiency.

Which one of these statements, if true, best supports the above claim?

A. Physical exercise is an important aspect of every practice session, even for the most talented athletes.

B. Employees who engage in physical activity perform better than those who do not.

C. It has been discovered that the work environment is a more motivating factor than monetary rewards.

D. If an individual is assigned to the same task for more than six months, the motivation of an employee towards work becomes low

8

Over the last five years, there is substantial evidence that the mandatory vaccination of children under the age of four has resulted in fewer child facilities. The number of children under the age of four who died in the five years prior to the introduction of a law requiring immunization has fallen by 30%.

Which one of these statements, if true, best supports the above claim?

A. Over the last five years, air pollution has worsened.

B. Over the last five years, the death rate for other age groups has remained stable.

C. The country's health situation is better than it was previously.

D. Last year, the government launched a malaria control effort

9

Two-thirds of native-born Sydney residents developed significant nearsightedness after commencing school, according to research, but their illiterate parents and grandparents, who had no opportunities for formal learning, exhibited no evidence of this handicap.

Which one of these statements, if true, best supports the above claim?

A. People who are illiterate do not have nearsightedness.

B. Children's nearsightedness is induced by the visual stress imposed by reading and other schoolwork.

C. Nearsightedness affects only those who have had the opportunity to attend formal schooling.

D. People who are literate are the only ones who are nearsighted.

10

The nation's health system, among other things, relies on a steady supply of blood from donors to maintain its stocks. Blood storage for long-term usage is a complex, costly, and time-consuming process; also, many clinicians consider that the blood stored is unreliable. Fresh red blood cells stay viable for transfusion for only six weeks when preserved in a mix of plasma and nutritional dextrose, therefore they can't be utilized for a long time.

Which one of these statements, if true, best supports the above claim?

A. Blood donation should be promoted to the general population in order to keep the stocks replenished.

B. The government should provide additional blood storage facilities.

C. It is unavoidable to do research in order to discover new methods for blood storage.

D. An extensive study into blood substitutes may be able to alleviate the problem.

11

Most stars are born in clusters of thousands, with each star in the cluster emerging from the same gaseous parent cloud. Each cloud has a chemical makeup that is distinct and homogeneous. As a result, whenever two stars have the same chemical makeup, they must have formed from the same gas cloud. Which one of these statements, if true, best supports the above claim?

A. Gas clouds with similar or identical chemical compositions can be far apart.

B. When a star forms, it takes on the chemical makeup of its parent gas cloud.

C. Many stars in radically distant locations of the cosmos have chemical compositions that are strikingly similar.

D. Astronomers can occasionally establish whether a star's chemical makeup is identical to that of its parent gas cloud.

12

Floods inundated low-lying garlic crops in a mosquito-infested area one summer. Mosquitoes deposit their eggs in standing water, therefore flooded fields should attract them. However, no mosquitoes were observed in the fields. Diallyl sulfide, a primary component of garlic, has been shown to repel a variety of insects, including mosquitoes, thus it's likely that the garlic diallyl sulfide repelled the mosquitoes. Which one of these statements, if true, best supports the above claim?

A. The mosquito population in the region as a whole was much lower than it had been in prior years during the year of the flooding.

B. By the end of the summer, waterborne fungi had killed the majority of the garlic plants in the flooded fields.

C. Onions contain diallyl sulphide, but at lower proportions than garlic.

D. Throughout the summer, many bug species not repelled by diallyl sulphide were found in the flooded garlic fields.

13

A law firm has implemented an Employee Wellness Program that will provide free access to Smokers Anonymous programs, diabetes monitoring, and subsidized gym memberships to attorneys and support personnel. Similar initiatives have been demonstrated to boost workplace attendance and performance while also lowering the employer's health insurance expenditures. As a result, the Employee Wellness Program will benefit both employees and the company.

Which one of these statements, if true, supports the above claim?

A. Exercising without the assistance of a personal trainer can result in damage owing to improper weight-training equipment usage.

B. Employees will be able to enhance their cardiovascular health and lower the risk of major disease by taking advantage of discounted gym subscriptions.

C. Only 20% of smokers who participate in Smokers Anonymous programmers are successful.

D. When employers provide free diabetes monitoring, many employees take advantage of it.

14

A kiwi has twice the amount of vitamin C as an orange. Those seeking their daily dosage of Vitamin C from fruits, however, do not need to substitute kiwis for oranges in their diet.

Which one of these statements, if true, supports the above claim?

A. Orange provides the recommended daily dosage of Vitamin C

B. Vitamin C from kiwis is easier for the human body to assimilate than vitamin C from oranges.

C. In addition to vitamin C, oranges contain a number of other nutrients that are good for human health

D. Kiwis may be more difficult to come by in some areas than oranges.

15

Thirty students were examined on their coding abilities in a Software Programming Language class. These students were then given a one-week coding training course. They were evaluated again, and their errors had decreased by 25%. This result demonstrates that the training was successful in improving their coding skills.

Which one of these statements, if true, supports the above claim?

A. Students' logical ability is directly related to their ability to code accurately.

B. A similar set of students who were tested on their coding ability but did not receive the course did not show a reduction in errors.

C. The first testing session served as a warm-up for the subsequent testing session.

D. The students were all very good at computer basics, and those who are strong at computer basics are usually good at coding.

16

You should work on improving your typing speed if you want to be a professional transcriptionist. However, "words per minute" is not the greatest metric. Instead, concentrate on being able to type extended portions of at least 500 words swiftly and precisely. You'll come across a wide range of words, numbers, and punctuation styles. While shorter passageways are important for achieving a higher top speed, they are insufficient to maintain speed over time.

Which one of these statements, if true, supports the above claim?

A. The majority of paragraphs transcriptionists encounter in their work are over 500 words long and contain a range of different words, numbers, and punctuation.

B. When asked what factors are taken into account when employing transcriptionists, the majority of companies said typing speed is the most significant element.

C. On average, successful transcriptionists type quicker than 90% of the population.

D. After typing for 500 words, one's typing speed drops by 20%.

17

Comprehending science, which entails understanding the scientific method, necessitates knowledge of history. The scientific method has evolved over centuries, and while it is now widely accepted, it is based on certain assumptions that must be recognized in order to properly comprehend its limitations. For example, it was not considered that one had to generate a working hypothesis before beginning experiments five hundred years ago. The steps might be done in any order or skipped entirely back then. Such concepts are unheard of in today's scientific world, and we need more scientists who understand how this happened.

Which one of these statements, if true, supports the above claim?

A. The scientific community likes to concentrate on the results rather than the techniques that produced them.

B. Even now, some scientists do not follow the scientific method exactly as they were taught.

C. Studying history is the only way to properly comprehend the scientific method's fundamental assumptions.

D. The majority of scientists are unaware of the history of the scientific method's evolution.

18

Extensive training for all medical professions is a costly and unnecessary mistake. Although some do sophisticated procedures and some eye exams, everyone must undergo generalized training. Many medical practitioners would be more easily qualified to practise and charge less if training requirements were more effectively matched to specific jobs within the medical industry.

Which one of these statements, if true, supports the above claim?

A. Those who perform eye exams are not required to have extensive training.

B. Medical professionals who are not required to complete extensive training would be able to obtain certification more quickly and charge less for their services.

C. Medical practitioners charge less for their services when certification is easier to obtain.

D. The same training is given to medical professionals who do difficult procedures and those who perform eye exams.

19

The value of a college degree has dwindled. There was a period when only a small number of people earned college degrees and were thus uniquely prepared for specific vocations. Because so many people now have college degrees, obtaining one no longer qualifies someone as uniquely qualified.

Which one of these statements, if true, supports the above claim?

A. A college degree is pointless if it does not allow a person to find a good job.

B. A college degree is useless if it does not qualify a person for specific jobs.

C. People with college degrees are today unemployed in greater numbers than they were five years ago

D. A college education now costs more than it did in the past.

20

Ashley is now a member of the Blue team, but she should consider switching to the Red team. Ashley would be a great addition to the Red team because she is extremely talented and would have a better chance of winning a title if she switches to the Red team. True, Ashley will most likely make more money while staying in the Blue team, but her main ambition is to win a title.

Which one of these statements, if true, supports the above claim?

A. Ashley may not be the most talented player on the Blue team, but she is the most talented player on the Red team.

B. Ashley hasn't won a championship in her life.

C. If Ashley plays for the Red team, she has a higher chance of winning a title than if she plays for any other team.

D. Ashley would be paid more to play for the Red team than for any other team less Blue team.

21 Government intelligence agencies have spent resources equally between domestic and foreign efforts for the past thirty years. Intelligence agencies have been conducting secret operations in addition to obtaining intelligence for around the same amount of time. This behaviour has sparked public outrage that spy agencies have too much power. Domestic spending and secret operations may, in the end, simply be the result of incompetence.

Which one of these statements, if true, supports the above claim?

A. Over the last thirty years, intelligence agencies have become less powerful than they once were.

B. To deal with foreign challenges, intelligence agencies must be powerful.

C. For more than three decades, the public has been concerned that intelligence agencies are excessively strong.

D. Before they launched covert operations or spending on domestic intelligence, intelligence agencies were incompetent.

22

Standardized testing is appropriate for adults and high school students, but it is not appropriate for younger children. At that age, a single standard of measurement is practically unattainable due to the range of curriculum and the fact that many elementary school-aged children are homeschooled or attend private schools. While some may claim that children's intrinsic talents can be distinguished from their taught information, experience has shown that these distinctions are practically hard to make until they reach adolescence.

Which one of these statements, if true, supports the above claim?

A. Many people believe that a person's learning ability does not fully mature until they are at least sixteen years old.

B. Nearly all students have taken an algebra subject by the time they reach their junior year of high school, while some start as early as seventh grade.

C. Children as young as three years old are regularly given standardised IQ tests that are designed to take age into consideration.

D. The majority of elementary school students in private schools are taught the same subjects as their peers in public schools.

23

Some of the justifications for increasing oil output in the United States are incorrect. Within fifty years, automobiles that do not burn gasoline will be widely available, and vehicles that do not burn gasoline do not necessitate oil production. Furthermore, any gains from increased oil production in terms of job creation would be outweighed by the negative economic effects of producing a product that will not be in demand. Increased development of oil alternatives, on the other hand, can produce jobs.

Which one of these statements, if true, supports the above claim?

A. Oil consumption has a significant negative impact on the environment.

B. Alternatives to oil production will provide as many jobs as increased oil production.

C. When non-gasoline vehicles become widely available, they will be utilized solely.

D. After 50 years, the oil will no longer be used for any reason.

24

Children are not harmed by video games. After three decades of popularity, there is still very little evidence that video games have any harmful effects on young minds. Role-playing and strategy games, in particular, should be able to assist children in developing problem-solving skills more effectively than many other traditional board games.

Which one of these statements, if true, supports the above claim?

A. Children who play video games are more likely to succeed in school, according to scientific evidence.

B. Children who play video games more frequently have a higher risk of developing health problems.

C. Children are exposed to extreme types of violence through violent computer games at a very young age.

D. Many children learn classic stories through playing video games.

25

The presence of salt in the food being cooked reduces the efficiency of microwave ovens in killing dangerous microorganisms commonly found in popular foods. The interior of unsalted food reaches temperatures high enough to kill microorganisms that cause food poisoning when heated in a microwave oven, whereas the interior of salted food does not. Salt, according to scientists, efficiently inhibits microwaves from heating the interior. Which one of these statements, if true, best supports the above claim?

A. Food poisoning germs are more likely to be present on the outside of food than on the inside.

B. If people did not use microwave ovens to prepare or reheat food, the risk of serious food poisoning would be greatly reduced.

C. When salt is added to food that has been cooked or reheated in a microwave oven, the risk of food poisoning increases.

D. When preparing items to be cooked in a microwave oven, avoid using salt to reduce the risk of food poisoning.

26

A decline in concert attendance has been seen by a rock band recently. The rock band included some new music in their performance to overcome the decline in attendance because recently, a pop band included more new music in their live performances and saw an increase in attendance. Which one of these statements, if true, best supports the above claim?

A. People are constantly eager to hear new music.

B. A pop band released several new songs, which contributed to the reduction in attendance.

C. Attendance patterns for rock and pop bands are similar.

D. Pop bands are not as popular as rock ones.

27

High-calorie foods are frequently the foods that individuals desire to consume the most. This is not due to a choice on the side of humans to be ill, but rather to the fact that humans have historically been very active animals. A craving for calories was a requirement of everyone who would be burning a huge number of calories. Which one of these statements, if true, best supports the above claim?

A. Throughout history, human behaviour has essentially remained steady.

B. High-calorie foods are among the most popular in grocery stores around the world.

C. Human activity is lower today than it has ever been throughout recorded history.

D. In many places, the most calorie-dense items aren't always the most popular.

28

Incentives for pharmaceutical companies to innovate and create new drugs are dependent on intellectual property rights. Despite this, the authorities should be willing to limit intellectual property rights in specific cases. Millions of people are dying as a result of numerous diseases, and because some pharmaceutical corporations have exclusive rights to create specific drugs, many people are unable to afford them. Which one of these statements, if true, best supports the above claim?

A. Many of the necessary innovations to combat the various diseases that kill millions of people have already occurred and have been patented.

B. Intellectual property rights are already being violated in a number of places around the world.

C. Many pharmaceuticals manufactured by companies other than the ones that they designed are substandard.

D. Many pharmaceutical manufacturers would not innovate if they were not rewarded handsomely for doing so.

29

When automobile companies put making a lot of money at their top priority, they forget about their responsibilities to build safe cars. The carmakers generating more revenue are mostly those who manufacture the most unsafe vehicles. Automobile makers should be less interested in making a lot of money in order to improve vehicle safety. Which one of these statements, if true, best supports the above claim?

A. Automobile safety can be improved with minimal effort on the side of automakers.

B. Profitability is also a top concern for the automobile manufacturers who make the most money.

C. Automobile manufacturers' profits grow as they put less emphasis on making high profits.

D. All car manufacturers spend roughly the same amount of money on vehicle safety.

30

Living in the city, contrary to popular belief, leads to a healthier lifestyle than living in the countryside. This is due in large part to the fact that people living in the city are frequently encouraged to walk more than countryside residents.

Which one of these statements, if true, best supports the above claim?

A. City diet is generally healthier than food in the countryside.

B. It has been proven that walking is good for one's cardiovascular health.

C. While the city has greater air pollution, it also has more mechanisms in place to filter the air that is circulated within.

D. Living in a city is safer than living in a town since traffic collisions are more common in smaller towns.

Weakening Critical Reasoning

1

An increasing number of people prefer to retain their individuality and their own identity and consequently, this has led to a decline in the marriage rate.

Which one of these statements, if true, best negates the above claim?

A. The benefits of marriage outweigh the disadvantages of the combined responsibility of husband and wife.

B. The majority of people are not mature enough to marry.

C. The wife of the majority of married couples wishes to have children.

D. Men and women have separate sets of ideals that they honour.

2

We have no excuse as a society for the prevalence of chronic dehydration. The solution is far too simple and straightforward. Those who have the disorder seek medical advice and treatments, and they have inexplicable dizziness and other symptoms, as well as being sensitive to illness. These people just need to drink more water—either alone or as a key ingredient in other beverages - to cure these difficulties and enhance energy and focus.

Which one of these statements, if true, best negates the above claim?

A. The majority of individuals aren't aware of the dangers of severe dehydration.

B. Many people who aren't chronically dehydrated experience the same symptoms as chronically dehydrated people.

C. There are several treatments for chronic dehydration that are more effective than simply drinking more water.

D. Many persons who are dehydrated for a long time are unable to consume extra water.

3

Shawn was running through the rain to get to his next class, and I saw him. He accomplished nothing today by rushing instead of strolling, despite the fact that he forgot his umbrella. Even though they may reach their destinations faster, people get just as wet running in the rain as they do walking.

Which one of these statements, if true, best negates the above claim?

A. To get to class, Shawn didn't have to run very far.

B. Shawn is a faster runner than the majority of individuals.

C. Shawn made it to class faster than if he had walked.

D. Shawn ran to class to be there in time.

4

Businesses that invest in renewable energy often prioritize social responsibility over profit. Renewable energy investments are also quite risky, and numerous have been known to result in significant losses for their companies. As a result, investing in renewable energy is a poor choice.

Which one of these statements, if true, best negates the above claim?

A. Companies with large losses typically go bankrupt within a year.

B. Many financial ideas recommend diversifying your investment.

C. The majority of companies do not invest in renewable energy.

D. Companies that invest in renewable energy diversify their energy sources to mitigate their high risk.

5

Those who go to college are wasting their money. The vast majority of college graduates are employed in fields that do not require their specializations, while others are unemployed. Further, contrary to common belief, the average college graduate is not paid substantially more than the average worker who is not a college graduate.

Which one of these statements, if true, best negates the above claim?

A. Today, there is more number of college graduates as compared to the past.

B. College graduates have a higher chance of finding work than non-college individuals.

C. In comparison to non-graduates, the average college graduate owes more money.

D. Only a small percentage of college graduates say they regret getting an education.

6

Major sporting events, such as bowl games and major basketball tournaments, prove beneficial to cities, but they also bring complications. Visitors boost local businesses and increase tax income by using hotels, restaurants, and shopping. However, because of the influx of tourists, police and hospitals are frequently understaffed. Historically, these communities have been able to find enough temporary employees from outside sources to meet their needs. As a result, for the cities set to host the next major sporting events, the benefits exceed the challenges.

Which one of these statements, if true, best negates the above claim?

A. There are expected to be more tourists at future major sporting events than there have been at past events.

B. Increased tourism is not a critical need for the cities hosting the next major sporting events.

C. The next cities to host major sporting events have larger police forces and hospital staff than cities that have hosted the events in the past.

D. The cities that will be hosting the next major sporting events are remote and will not be able to obtain any outside workers.

7

Employees today are less skilled than employees in the past. This information is undoubtedly surprising to some because standards are higher than they have ever been. Employers are requiring greater degrees than ever before, and there are more workers with bachelor's and master's degrees now. Higher education does not, however, imply greater competence. According to recent studies, modern professionals have poor writing skills, lack focus, and are ineffective communicators.

Which one of these statements, if true, best negates the above claim?

A. Workers today are fired less frequently than ever before.

B. Bachelor's and master's degrees were commonly attained by workers in the past.

C. Workers in the past had weak writing skills, were unable to focus, and were poor communicators.

D. Those in the modern-day work longer hours than workers in the past.

8

Microwaves heat objects by causing molecules to travel quicker as they are excited. Microwaves, on the other hand, are larger than an ant. As a result, an ant is unaffected by microwaves and can withstand exposure to them, when most other species would perish.

Which one of these statements, if true, best negates the above claim?

A. Many species which are smaller than the microwave are safe from its effects.

B. The ants have hardy skin, so they are naturally resistant to environmental effects.

C. Not all ants can withstand being exposed to microwaves.

D. Microwaves are bigger than ants, but that doesn't stop them from getting inside the ant's body.

9

Environmental activists who are just concerned with lowering carbon emissions are making a mistake. Many environmental issues, including some that are more significant than carbon emissions, should be of great concern. Water pollution, for example, has disastrous environmental consequences. Activists who focus just on carbon emissions fail to comprehend that contamination of water and other concerns also harm the environment. Which one of these statements, if true, best negates the above claim?

A. Since there is more room for development in this area than in others, some environmental activists concentrate their efforts on cutting carbon emissions.

B. Some environmental issues are more dangerous than both water pollution and carbon emissions.

C. Water pollution and carbon emissions are two issues that some environmental activists are concerned about.

D. The majority of environmental activists are primarily concerned with water pollution.

10

Some lawyers believe that identifying the inherent characteristics of horror movies in any text requires literary critique, and so is a matter of opinion. It's odd, though, that in a legal context, serious critics frequently act as if the criticism is merely a matter of opinion. Why be a critic - and teach at colleges - if criticism consists solely of expressing arbitrary and capricious opinions? Which one of these statements, if true, best negates the above claim?

A. Nothing, according to literary critics, is horror.

B. Because literary critics are divided on this issue, experts consider that observing the qualities of horror movies is a matter of opinion.

C. Literary critics are not the legal authorities.

D. Literary critics should not be concerned with determining what horror is.

11

The dangers of mixing specific chemicals are frequently mentioned on cleaning supply labels. This is due to the fact that regular household cleaning materials have caused major injuries in the past. Customers, however, seemingly uninformed of the dangers of combining potentially dangerous substances, casually place them near each other after purchasing them. The contents of most people's cleaning closets pose a serious threat to them.

Which one of these statements, if true, best negates the above claim?

A. To avoid accidentally mixing cleaning products, some individuals keep them in different places.

B. Most people buy cleaning goods in too little quantities for the chemicals to be harmful when mixed together.

C. Household chemicals are rarely combined on purpose.

D. Cleaning materials are sometimes purchased in larger amounts by businesses than by individuals.

Recent studies show that homeowners who décor their houses with peaceful scenes, whether in the form of paintings or photographs, have a sense of serenity and contentment. Those who suffer from anxiety or restlessness could use photos of peaceful settings to decorate their homes. They can boost sensations of peacefulness and comfort by doing so.

Which one of these statements, if true, best negates the above claim?

A. Homeowners who use living plants to beautify their houses have sentiments of calm and contentment.

B. Anxious and restless homeowners frequently have no decorations in their homes.

C. Homeowners who choose calm scenes to decorate their homes generally do so in order to increase feelings of serenity and comfort.

D. Homeowners frequently select peaceful themes to design their houses because they already feel at ease.

13

This year, the university's top basketball player has scored half as many points as he did last year. His mother died in the middle of the season, leading to speculation that he had fallen into serious grief. His mother's death appears to have had an impact not only on his emotional state but also on his playing. Which one of these statements, if true, best negates the above claim?

A. The basketball player's mother was distant from him and frequently verbally harsh.

B. According to some coaches, the death of a loved one may be a powerful motivator for athletes, instilling a sudden desire to perform at their best.

C. During the first half of the season, the basketball player's performance had significantly deteriorated.

D. Before and after practice, the basketball player was frequently overheard criticizing his mother.

14 Due to the bacteria found in curd, it improves digestion. This is due to the bacteria growth' favourable effects on human internal organs, which allows them to work more efficiently. However, not all yogurts include live bacteria cultures, and instead of being produced entirely of milk, many are thickened with corn starch and other ingredients to give them the consistency of true curd. These yogurts won't help you digest your food. Which one of these statements, if true, best negates the above claim?

A. If consumed in large quantities, the bacteria contained in yogurt can have harmful health consequences.

B. Bacteria are present in all yogurts, even in trace levels.

C. It has been discovered that corn-starch aids digestion.

D. It is the amino acids in milk-based yogurt, not the bacteria produced as a by-product that improve digestion.

15

Almost no one could have imagined how swiftly cell phone technology would advance. Was it ever imaginable fifteen years ago that mobile devices would be able to store vast amounts of data as well as access the internet? Cell phones, on the other hand, do both of these things and are freely available to the general public just a few years later. While technology evolves at a predictable, moderate rate most of the time, there are times when developments are so rapid that they are simply incredible. The emergence of the cell phone is an example of such a period.

Which one of these statements, if true, best negates the above claim?

A. While cell phone capabilities have evolved dramatically over the last fifteen years, the technology that supports those developments has progressed at a steady, predictable rate.

B. Rapid stages of development have happened on a regular basis for at least four centuries.

C. Cell phones without an internet connection are still in use.

D. Cell phones are still not widely available in many regions of the world.

Historically, there hasn't been much of a need for the law to safeguard privacy rights directly. Before the internet, trespassing laws made it illegal to violate people's privacy in their own houses. The internet, on the other hand, has altered everything. Companies now track the users of the website visit and sell the information obtained about them. While there are some financial rewards to these incursions, privacy concerns are sacrificed. To solve today's privacy concerns, new legislation is required.

Which one of these statements, if true, best negates the above claim?

A. In the past, trespass rules prohibiting privacy invasions were frequently neglected.

B. Current trespass rules make it illegal for businesses to track which websites consumers visit and sell the information they collect.

C. Individuals, as well as businesses, keep track of the websites their customers visit.

D. Many famous websites would be unable to run without the capacity to monitor how they are being used.

17

I disagree with the popular opinion that schoolchildren should have fewer math requirements. While few students will use math directly in their professions, it is a crucial skill to learn. Children learn to follow difficult directions, reason and confirm outcomes in math classes. These abilities are beneficial in both life and work. Aside from that, the majority of other subjects that children study are merely indirectly valuable.

Which one of these statements, if true, best negates the above claim?

A. The majority of employers do not expect workers to follow complicated instructions or double-check outcomes.

B. Subjects other than mathematics teach children how to follow complex instructions, reason, and confirm results.

C. Some talents, such as following complex instructions, thinking, and confirming results, are more vital in life and work than others.

D. The majority of firms do not demand that employees have great math skills.

18

It is not appropriate for Smith to be promoted to Assistant Manager. According to sales numbers from the previous six months, three other employees in the same division sold more than Smith did during that time. We nearly entirely base our promotions on an employee's ability to sell, as you know.

Which one of these statements, if true, best negates the above claim?

A. Smith has been allocated to handle particularly difficult clients during the previous six months due to his nice attitude, and sales among those clients have increased over that time.

B. Two of the three employees that outsold Smith over the course of six months haven't been with the company as long as Smith.

C. In the last six months, the company's overall revenues have declined.

D. Smith won his division's "Most Improved Salesman" title last year.

19

I've been surprised by the terrible behaviour of students and the unpleasant attitude of the locals since I arrived at the college last week, but the teachers are quite intelligent and helpful. Still, I'm not sure how I got here in the first place.

Which one of these statements, if true, best negates the above claim?

A. Professors aren't always willing to assist students.

B. The college has around 50,000 students enrolled.

C. The college is a long distance away from the students' homes.

D. Not every professor holds a PhD.

20

According to a preliminary report from an experimental math programme launched in seven Boston-area pre-schools, children who got professional math education between the ages of three and five have much higher arithmetic scores in third and fourth grade than their classmates who did not. The experimental math program's supporters advocate for its completion as part of conventional pre-school education. They claim that implementing this programme for all children aged three to five years improves their chances of academic success.

Which one of these statements, if true, best negates the above claim?

A. The majority of parents send their children to preschool for social development and have no idea that what kind of education they desire for their children.

B. Children's cognitive capacities change rapidly between the ages of three and five.

C. The pre-schoolers in the study had previously been exposed to a different math programme.

D. Preschool enrichment programmes do not spark the interest of children.

21

Chemical waste dumps, according to the petrochemical industry, represent harm to those living nearby. If this is the case, why do the plants grow in sparsely populated areas? By refusing to locate chemical dumps in heavily populated regions, the petrochemical sector implicitly accepts that these chemicals are potentially detrimental to those who live nearby. Which one of these statements, if true, best negates the above claim?

A. Only rural communities are eligible for funding from the environmental super fund to clean up poorly maintained garbage dumps.

B. It would be unwise to locate chemical wastes where they could potentially do the most harm unless they are confirmed to be 100 per cent safe.

C. Putting the dump in the most sparsely populated areas saves money and cuts down on government red tape.

D. The potential for chemicals to drain into the groundwater has been overestimated in the past.

22

Employees of stock exchange financial organizations earn more money than employees of most other businesses. Smith works as an office manager for a financial firm on the New York Stock Exchange, therefore he must have an impressive salary. Which one of these statements, if true, best negates the above claim?

A. Make an attempt to determine a single reason for a phenomenon that could have multiple causes.

B. A lack of clarity on what an "impressive salary" means.

C. The belief that what is true of a group as a whole must also be true of each individual member.

D. An apparent confusion of a phenomena's cause and an impact of that phenomenon.

23

Pharmacists recently did a survey to see why their patients used eye drops to treat dry eyes. People who did not wear contact lenses were more likely to report dry eyes. The pharmacists came to the conclusion that simply wearing contact lenses can cause dry eyes. Which one of these statements, if true, best negates the above claim?

A. The impaired eyesight and dry eyes might be caused genetically.

B. Physical exertion also causes eye dryness in many people who wear contact lenses.

C. Contact lenses are not worn by the majority of people who suffer from dry eyes.

D. The majority of contact lens wearers do not suffer from dry eyes.

24

Over the last two decades, the population of illiterate young adults in our country has dropped considerably. Officials from the Department of Education attribute this decline solely to improved school circumstances, which resulted in a better teaching environment and reduction in illiteracy.
Which one of these statements, if true, best negates the above claim?

A. Over the last three decades, many similar improvements in school conditions have been implemented across the country.

B. Home-schooling has not been found to be more common among the uneducated than among the literate.

C. Many people who were previously considered illiterate are now considered low-level readers as a result of the new assessment scale.

D. For the past three decades, the same percentage of people has been tested annually.

25

We would have to rely on government finances to maintain all beaches if they were publicly owned. True, more people would be able to enjoy the seaside and beaches, but at what cost? If the beaches are not properly maintained, there will soon be nothing worth visiting. Before nationalising more coastal property, we should think seriously.

Which one of these statements, if true, best negates the above claim?

A. Additional beach access is not desired by the general population.

B. Currently, the government is responsible for maintaining all public and private beaches.

C. Many beaches are already open to the public.

D. Other properties have been nationalised in the past with no objections from the property's original owners.

26

Only the bark of the ibora, a tree that is very rare in the wild, can be used to make a medicine that is particularly successful in treating many kinds of infections. One kilogram of the medication is made from the bark of 5,000 trees. As a result, ongoing drug manufacture must inevitably result in the extinction of the ibora.

Which one of these statements, if true, best negates the above claim?

A. A central authority distributes the ibora bark-based medicine to doctors.

B. The medication derived from ibora bark is costly to manufacture.

C. Ibora leaves are used in a variety of medical applications.

D. Ibora cuttings can be reproduced and grown under cultivation.

27

Regardless of how much music we are exposed to throughout our lives - classical, folk, jazz, rock, and country – the music we loved as teenagers will always be our favourite.

Which one of these statements, if true, best negates the above claim?

 A. Some people are only exposed to folk music later in life and discover that they appreciate it.

 B. Some people who love rock as teenagers grow up to favour classical music.

 C. People who are only exposed to jazz as children will never appreciate it.

 D. Some teenagers who are exposed to classical music never learn to appreciate it.

28

Dry bread contains an inactive virus, according to researchers. Researchers previously discovered that inactive viruses might transform healthy cells into cancer cells. It can be established that eating dry bread can cause cancer.

Which one of these statements, if true, best negates the above claim?

 A. The findings of numerous investigations on the same subject were consistent.

 B. Many additional dry bread elements can counteract the effects of dormant viruses.

 C. The use of dry bread was confirmed by a large number of cancer patients.

 D. Dry bread is used by 10% of the rural population.

29

According to recent research of insurance underwriters, people who work in pleasant physical environments are 25 per cent more productive than those who work in poor physical environments. Caseload and complexity of cases were objective metrics for measuring job performance. This demonstrates that improving workers' working conditions boost productivity. Which one of these statements, if true, best negates the above claim?

A. On average, less productive employees spend the same amount of time at their desks as more productive employees.

B. Workers are less motivated to work hard in unpleasant environments than in nice environments.

C. Employees that are more productive are usually rewarded with nicer office space.

D. Employees that are more productive do not work any more hours than their less productive counterparts.

30

When children of cigarette-smoking parents in London were compared to children of non-smoking parents in Victoria, researchers discovered that children of smoking parents in London scored lower on test scores than children of non-smoking parents in Victoria. As a result, second-hand cigarette smoke reduces test scores. Which one of these statements, if true, best negates the above claim?

A. Regardless of whether their parents smoke or not, children in London had lower test results than children in Victoria.

B. London has a higher smoking rate than Victoria.

C. Some nonsmoking parents' children in Sydney have good exam scores.

D. On average, nonsmoking parents in London have more children than nonsmoking parents in most other cities.

ANSWER KEY

CHAPTER 1

1. C	11. D	21. A
2. D	12. C	22. B
3. B	13. C	23. A
4. A	14. A	24. D
5. C	15. B	25. D
6. A	16. C	26. C
7. C	17. B	27. B
8. D	18. C	28. A
9. A	19. B	29. C
10. B	20. D	30. D

CHAPTER 2

1. A	11. C	21. A
2. A	12. A	22. D
3. A	13. A	23. C
4. D	14. C	24. C
5. A	15. B	25. A
6. B	16. C	26. A
7. A	17. C	27. B
8. D	18. C	28. A
9. B	19. D	29. D
10. D	20. C	30. C

ANSWER KEY

CHAPTER 3.1

1. C	11. B	21. A
2. B	12. D	22. B
3. D	13. B	23. A
4. C	14. A	24. A
5. B	15. B	25. D
6. A	16. A	26. C
7. B	17. C	27. A
8. B	18. B	28. A
9. C	19. B	29. B
10. A	20. C	30. B

CHAPTER 3.2

1. A	11. B	21. C
2. D	12. D	22. D
3. C	13. C	23. D
4. D	14. D	24. C
5. B	15. A	25. B
6. D	16. B	26. D
7. C	17. B	27. D
8. D	18. A	28. B
9. A	19. B	29. C
10. B	20. C	30. A

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