
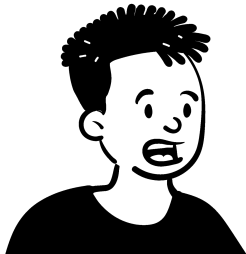
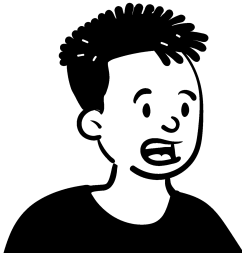


NO.	QUESTION
1	<p>Netflix shows and movies depicting teen violence are extremely popular. Given the power of the media, we have every reason to believe that these depictions influence young people to engage in violent behaviours. As a result, depictions of violence among teenagers in movies and television programmes should be prohibited, especially in those programmes and movies aimed at a young audience.</p> <p>Which of the following statements, if true, best strengthens the above argument?</p> <ul style="list-style-type: none"> A. People who can market to both young and old audiences make the most money. B. Adult actors portray the most violent movie and TV characters. C. Many violent adolescents were violent before even seeing violent movies. D. Many movie and TV producers limit the content of kid-friendly films.
2	<p>The use of gasohol ought to see a more significant increase. Gasohol, which is a combination of gasoline and alcohol, possesses a higher octane rating and produces fewer emissions of carbon dioxide than regular gasoline does. Burning gasoline does not add any more carbon dioxide to the atmosphere than what is removed by plants through photosynthesis. Therefore, every car owner should choose gasohol over gasoline.</p> <p>Which of the following statements, if true, best weakens the above argument?</p> <ul style="list-style-type: none"> A. Compared to the performance of cars when running on gasohol, gasoline is inferior. B. Gasohol reduces the likelihood of a gasoline shortage. C. Gasohol burns slightly faster per kilometre than gasoline in cars. D. Gasohol costs less to produce and less at the pump than gasoline.
3	<p>Shoe sellers often claim that a pair of shoes has a higher quality than it actually possesses. When you buy a pair of shoes from the Nike store, however, you can rest assured that the price is reasonable because the quality and authenticity of every pair of shoes that is sold there is certified in writing.</p> <p>Which of the following statements, if true, best strengthens the above argument?</p>

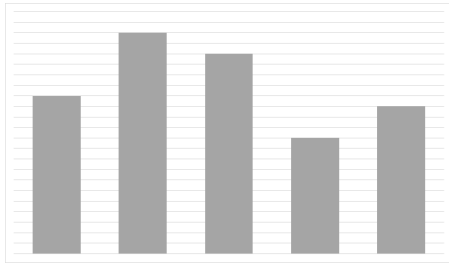
	<p>A. Many shoe stores, including Nike, provide written quality certification.</p> <p>B. Nike's shoe certifications are granted by shoe experts with years of experience.</p> <p>C. Nike sells higher-quality shoes than other stores.</p> <p>D. Independent shoe experts certify Nike shoes.</p>
4	<p>According to records from ten major hospitals covering the last four years, premature babies are more likely to have low birth weights and health problems. These records also show that mothers who received adequate prenatal care had fewer low-birth-weight babies. Therefore, prenatal care should be done to avoid low-birth-weight babies.</p> <p>Which of the following statements, if true, best weakens the above argument?</p> <p>A. Prenatal care is often expensive, which most mothers cannot afford.</p> <p>B. No records show that inadequate prenatal care results in low-birth-weight babies.</p> <p>C. Low-birth-weight babies were routinely classified as premature, hospital records show.</p> <p>D. Some babies with healthy pregnancies have low birth weights.</p>
5	<div> <p>Grace is deliberating whether or not she should get a puppy. She is interested in adopting a pet from the local animal shelter; however, she recently read a puppy magazine in which survey respondents reported a low incidence of health or behavioural issues with their purebred puppies purchased from dog breeders. This has dissuaded her from adopting a pet from the shelter.</p> </div> <div>  </div> <p>Grace: "I should follow the article and buy a pet from a dog breeder."</p> <p>Which of the following best expresses the flaw in Grace's argument?</p>

	<p>A. Grace has insufficient information about the puppies purchased from dog breeders.</p> <p>B. Grace has the wrong information about the puppies from the local animal shelter.</p> <p>C. Grace solely connects her decision to self-reported information from dog owners.</p> <p>D. Grace uses her personal experience as a reason why she will buy from dog breeders.</p>
6	<p>In a recent interview with BBC News, the CEO of VolunteerAustralia Inc. gave some unexpected information with regard to people who participate in volunteer work.</p> <p>According to the CEO, college students have a likelihood of participating in volunteer work, where their number of participations is five times higher than that of men and women over the age of 50.</p> <p>Moreover, the CEO said that college students are twice as likely as people over 50 to volunteer more than eight hours per week, which means that college students make up a disproportionately large portion of the population that volunteers.</p>  <p>Jack: “College students must know more than anyone else the value of volunteering and how it helps the community.”</p> <p>Which of the following best expresses the flaw in Jack’s argument?</p> <p>A. Jack’s statement does not connect to the information given in the box.</p> <p>B. Jack failed to realise that there are other volunteer groups present in Australia.</p> <p>C. Jack’s statement aligns with the sentiment of the majority.</p> <p>D. Jack misleads the audience by presenting complex issues from two opposite sides.</p>
7	

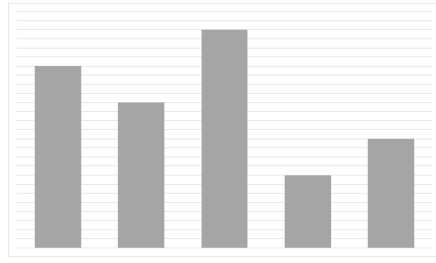
	<p>One of the top prospects for this year's NBA Draft is a talented player from Sydney, Australia, named Anthony Brave.</p> <p>He stands 6'9" tall and averaged 20.2 points and 14 rebounds per game when he was playing in an amateur league.</p> <p>Because of the incredible numbers he puts into his game, basketball analysts and NBA team researchers have dubbed him the "next LeBron James."</p>  <p>William: "Every NBA player over 6'9" tall has played centre in the last 50 years. Anthony is 6 feet 10 inches tall and will begin his professional basketball career this year. Thus, Anthony definitely will be playing the centre role like LeBron."</p> <p>Which of the following best expresses the flaw in William's argument?</p> <ul style="list-style-type: none"> A. William accuses Anthony of being a poor basketball player. B. William misinterprets evidence of a likely outcome as evidence of certainty. C. William misunderstands a sufficient condition as a necessary one. D. William trusts Anthony's amateur team's data without verifying it.
8	<p>Daily exercise is crucial. 30 minutes of exercise lowers heart rate, burns calories, and strengthens muscles. Many people don't realise that 30 minutes of exercise can boost metabolism and increase work or school productivity.</p> <p>Which of the following best expresses the main conclusion of the argument?</p> <ul style="list-style-type: none"> A. Most people don't know exercise's biggest benefits. B. Exercise has benefits and drawbacks. C. Exercise has both well-known and lesser-known benefits.

	<p>D. People will exercise more if they know the benefits.</p>
9	<p>The university must investigate novel approaches to enhance its students' performance on standardised tests. It used to have a significant number of highly qualified educators, but a significant number of them have since left to pursue careers in other fields. Their departure has had a negative impact on the quality of the education that is provided to the students. It is highly unlikely that the university will be able to recruit qualified instructors in the coming years.</p> <p>Which of the following best expresses the main conclusion of the argument?</p> <p>A. The university requires new faculty members who are exceptionally qualified.</p> <p>B. The university must come up with new ways to improve its test scores.</p> <p>C. High-quality teachers leaving have hurt student instruction.</p> <p>D. The university's overall performance on standardised tests is declining.</p>
10	<p>Amelia was asked to draw a bar chart for her homework, but she drew the pie chart shown below.</p> <div></div> <p>Assuming that her pie chart correctly represents the data, which of the following should Amelia have drawn?</p> <div><div>A. </div><div>B. </div></div>

C.



D.



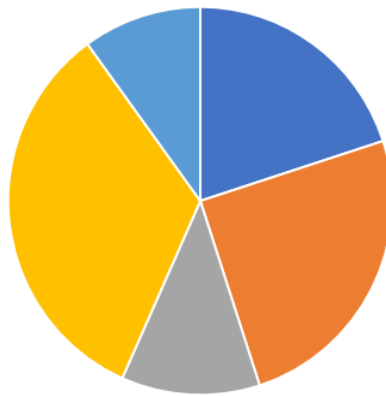
11

The faculty of Australian National University conducted a survey on which birth month is the most common. The top five results are as follows (not in a particular order):

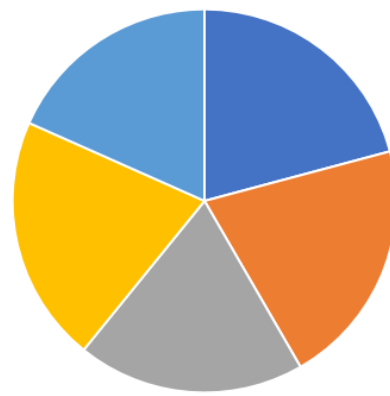
Birth Month	Votes
January	240
March	300
August	140
September	400
December	120

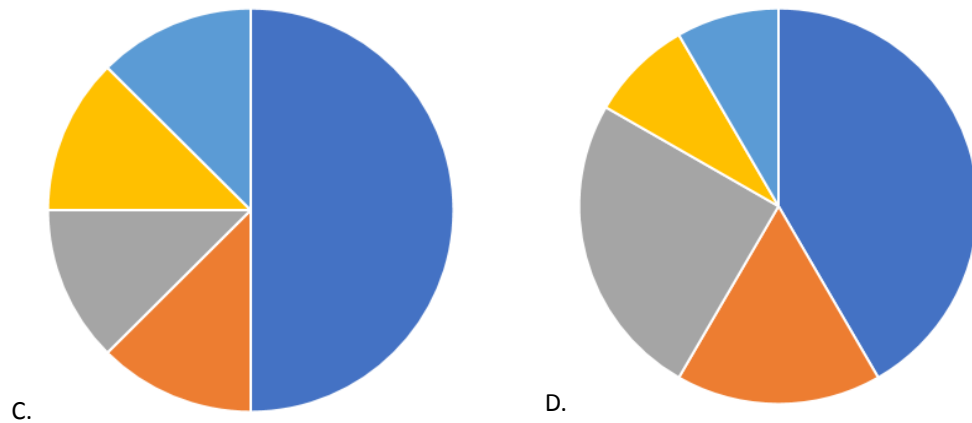
Which of the following correctly represents the pie chart for the findings above?

A.



B.





12

A venerable calligrapher charges according to the particular letters that she has to write. She puts the lowercase letters of the alphabet into these categories:

Type 1	b, d, g, i, j, m, n, p, s, t, w
Type 2	a, e, y
Type 3	c, h, l, o, r, u, x
Type 4	f, k, q, v, z

She charges as follows:

10 cents for every Type 1 letter that is followed by a Type 1 or Type 2 letter

15 cents for every Type 1 letter that is not followed by a Type 1 or Type 2 letter

20 cents for every Type 2 letter

25 cents for every Type 3 letter that is followed by a Type 1 letter

30 cents for every Type 3 letter that is not followed by a Type 1 letter

35 cents for every Type 4 letter

40 cents for every capital letter, regardless of its Type

Kevin wants to have this word designed:

Salacious

How much will this cost?

	<p>A. 200 cents</p> <p>B. 220 cents</p> <p>C. 215 cents</p> <p>D. 205 cents</p>												
13	<p>Lesley wants to buy 11 pairs of sandals for her collection. For convenience, she wants to buy all pairs of sandals from one shop only. Listed below are the different sandal stores and their various promo discounts:</p> <table border="1"> <thead> <tr> <th>Sandal Store</th> <th>Price per pair of sandals</th> <th>Promo Discount</th> </tr> </thead> <tbody> <tr> <td>Shop A</td> <td>\$165</td> <td>10% off on total purchases</td> </tr> <tr> <td>Shop B</td> <td>\$175</td> <td>Buy 4, Get 1 Free</td> </tr> <tr> <td>Shop C</td> <td>\$185</td> <td>\$399 less on total price</td> </tr> </tbody> </table> <p>If Lesley chooses the cheapest sandal store, how much will remain if she pays through her ATM card with a balance of \$4,999?</p> <p>A. \$2,924</p> <p>B. \$8,424</p> <p>C. \$4,434</p> <p>D. \$3,424</p>	Sandal Store	Price per pair of sandals	Promo Discount	Shop A	\$165	10% off on total purchases	Shop B	\$175	Buy 4, Get 1 Free	Shop C	\$185	\$399 less on total price
Sandal Store	Price per pair of sandals	Promo Discount											
Shop A	\$165	10% off on total purchases											
Shop B	\$175	Buy 4, Get 1 Free											
Shop C	\$185	\$399 less on total price											
14	<p>In June 2022, Landers decided to offer a promo discount for their customers who qualify for their loyalty program. The customers must meet both the requirements of the program:</p> <ol style="list-style-type: none"> The customer must have an average purchase of at least \$599 from February - April. The total cost of the purchases from the past 3 months should reach \$1,299.00 <p>Here are the customers who wanted to be part of the loyalty program:</p> <table border="1"> <thead> <tr> <th></th> <th>TOTAL PURCHASES PER MONTH (\$)</th> </tr> </thead> <tbody> <tr> <td></td> <td></td> </tr> </tbody> </table>		TOTAL PURCHASES PER MONTH (\$)										
	TOTAL PURCHASES PER MONTH (\$)												

Name	February	March	April	May
Olivia	556	514	625	426
Kyle	396	215	415	456
Jean	512	625	712	589
Mike	597	705	498	712

Who among the customers qualified for the loyalty program?

- A. Kyle and Olivia
- B. Olivia and Mike
- C. Jean and Mike
- D. Kyle and Jean

15

Jannie is a student taking her examinations. Her first examination is on Tuesday, 8 November, and has one examination every second day after that. All her examinations will be taken within 32 days . There are no examinations on Mondays, Thursdays, and Saturdays.



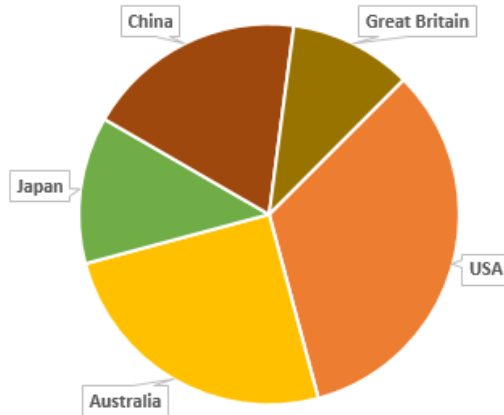
What is the day and date of her final examination?

- A. Tuesday 6 December

- B. Wednesday 7 December
- C. Friday 9 December
- D. Saturday 10 December

16

There are 960 Paralympians who participated in the Paralympic Games. The top 5 countries with the most number of participants are shown in the pie chart below.



Which of the following matches the data in the pie chart?

A.

Variable	USA	Australia	Japan	China	Great Britain
Value	420	140	60	240	100

B.

Variable	USA	Australia	Japan	China	Great Britain
Value	300	200	140	120	200





























C.


Variable	USA	Australia	Japan	China	Great Britain
Value	320	240	120	180	100

D.

Variable	USA	Australia	Japan	China	Great Britain
Value	240	320	60	240	100

17	<p>The bar graph below depicts ice cream sales (in thousands) from six branches of an ice cream company over two consecutive years, 2014 and 2015.</p> <p style="text-align: center;">Sales of ice cream from six branches of an ice cream company</p> <table><caption>Estimated Sales Data (in thousands)</caption><thead><tr><th>Branch</th><th>2014</th><th>2015</th></tr></thead><tbody><tr><td>B1</td><td>20</td><td>15</td></tr><tr><td>B2</td><td>15</td><td>20</td></tr><tr><td>B3</td><td>25</td><td>35</td></tr><tr><td>B4</td><td>20</td><td>10</td></tr><tr><td>B5</td><td>20</td><td>20</td></tr><tr><td>Total</td><td>100</td><td>100</td></tr></tbody></table> <p>What percentage of the total sales of branch B3 for both years is the total sales of branch B2 for both years?</p> <p>A. 46.15%</p> <p>B. 85.71%</p> <p>C. 42.86%</p> <p>D. 58.33%</p>	Branch	2014	2015	B1	20	15	B2	15	20	B3	25	35	B4	20	10	B5	20	20	Total	100	100
Branch	2014	2015																				
B1	20	15																				
B2	15	20																				
B3	25	35																				
B4	20	10																				
B5	20	20																				
Total	100	100																				
18	<p>A sudoku puzzle is shown below where instead of numbers, figures are used. The rules of this puzzle are as follows:</p> <p>Rule 1 - Each row must contain each of the four figures, without repetitions.</p> <p>Rule 2 - Each column must contain each of the four figures, without repetitions.</p> <p>Rule 3 - The figure can only occur once in each block (2 by 2 blocks).</p> <p>By identifying the arrangement of the figures in the whole 4 by 4 grid, which figure should be placed within the box marked with a question mark?</p>																					

	<table><tr><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td></tr></table> <div><p>A </p><p>B </p><p>C </p><p>D </p></div>																
																	
																	
																	
																	
19	<p>Three students - Mae, Kyla, and Raphael - were suspected of stealing their classmate's wallet. Teacher Fiona knows that the two of them are guilty. When faced with suspension, they made the following statements:</p> <p>Mae: Raphael is guilty. I saw what he did earlier.</p> <p>Kyla: Mae is not guilty. She is innocent.</p> <p>Raphael: I am guilty. I stole the wallet.</p> <p>However, only two of the three are telling the truth. The other one is lying.</p> <p>Which of the following statements must be true?</p> <p>A. Kyla is lying.</p> <p>B. Mae is not guilty and is telling the truth.</p> <p>C. Raphael is guilty and lying.</p> <p>D. Raphael is not guilty but is not telling the truth.</p>																
20	<p>Some statements are given in the question below, followed by some conclusions. You must accept the given statements as true, even if they appear to contradict commonly known facts. Read all the conclusions and then decide which one logically follows from the given statements.</p>																

	<p>Statements:</p> <ol style="list-style-type: none"> 1.) Some light bulbs are electric fans. 2.) Only a few electric fans are air conditioners. 3.) No air conditioner is a TV. 4.) All TV is a cell phone. <p>Conclusions:</p> <ol style="list-style-type: none"> 1.) Some electric fans are not cellphones. 2.) Some cell phones being an air conditioner is a possibility. 3.) Some TVs are light bulbs. <p>Which of the following logically follows?</p> <ol style="list-style-type: none"> A. Only conclusion 2 follows. B. Both conclusion 1 and conclusion 2 follow. C. Only conclusion 3 follows. D. Both conclusion 2 and conclusion 3 follow.
21	<div style="border: 1px solid black; padding: 10px; margin-bottom: 20px;"> <p>The moon's gravity is about 1/6th as powerful as the gravity of the Earth. This also means that the weight of an object on the moon is also 1/6th lighter compared to the Earth due to its weaker gravitational pull. The moon's gravity is weaker than Earth because it is smaller in size than our planet.</p> </div> <div style="text-align: center;">  </div> <p>Luke: "A 60-kilogram human here on Earth is just approximately 10 kilos of weight on the moon. What a fascinating idea! "</p> <p>Rose: "A falling object is slower on the moon than a falling object on Earth. "</p>

	<p>If the information in the box is true, whose reasoning is correct?</p> <p>A. Luke only</p> <p>B. Rose only</p> <p>C. Both Rose and Luke are correct.</p> <p>D. Neither Rose and Luke are correct.</p>																																																				
22	<p>Therese found a new way to send a message to her brother, Dan. Instead of using the normal alphabetical letters, she uses the keyboard keys to write a message. Below is a guide to Therese’s new messaging system:</p> <table><tr><td>A</td><td>B</td><td>C</td><td>D</td><td>E</td><td>F</td><td>G</td><td>H</td><td>I</td><td>J</td><td>K</td><td>L</td><td>M</td><td>N</td><td>O</td><td>P</td><td>Q</td><td>R</td><td>S</td><td>T</td><td>U</td><td>V</td><td>W</td><td>X</td><td>Y</td><td>Z</td></tr><tr><td>Q</td><td>W</td><td>E</td><td>R</td><td>T</td><td>Y</td><td>U</td><td>I</td><td>O</td><td>P</td><td>A</td><td>S</td><td>D</td><td>F</td><td>G</td><td>H</td><td>J</td><td>K</td><td>L</td><td>Z</td><td>X</td><td>C</td><td>V</td><td>B</td><td>N</td><td>M</td></tr></table> <p>Therese is planning this message to Dan: “GOOD LUCK ON YOUR CLASSES ”</p> <p>How will Therese communicate her message to Dan?</p> <p>A. UGORSXEAGFNGXKESOLLTL</p> <p>B. UGGRSXEAGFNGKKESQLLTL</p> <p>C. UGGRSXEAGFNGXKESQIITI</p> <p>D. UGGRSXEAGFNGXKESQLLTL</p>	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Q	W	E	R	T	Y	U	I	O	P	A	S	D	F	G	H	J	K	L	Z	X	C	V	B	N	M
A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z																												
Q	W	E	R	T	Y	U	I	O	P	A	S	D	F	G	H	J	K	L	Z	X	C	V	B	N	M																												
23	<p>Kenny used the binary number system of coding to send a message to his friend Trish.</p> <p>If the message “PERSONALITY” is written as</p> <p>01010000 01000101 01010010 01010011 01001111 01001110 01000001 01001100 01001001 01010100 01011001</p> <p>What is the code for PANELLIST?</p> <p>A. 01010000 01000001 01001110 01000101 01000101 01001100 01001001 01010011 01010100</p>																																																				

	<p>B. 01001001 01001110 01010011 01001111 01000101 01001100 01000001 01010100 01000101</p> <p>C. 01001111 01010010 01001001 01000101 01000101 01001110 01010100 01000001 01001100</p> <p>D. 01010010 01000101 01001100 01000001 01000101 01010100 01001001 01001111 01001110</p>
24	<p>Two letters must be placed in each set of brackets so that they form a word when tacked to the letters on the left and another word when placed in front of the letters on the right. The letters placed in the brackets must produce an eight-letter word when read downwards in pairs.</p> <p>AL (_ _) BY MA (_ _) EM EU (_ _) AD AT (_ _) IT</p> <p>What word can be formed?</p> <p>A. BACTERIA B. CONCRETE C. BATHROOM D. ENTRANCE</p>
25	<p>Daniel has a large number of passwords he needs to remember from the many gaming accounts he has. Thinking it will be more secure, he uses an alternative alphabet to create the passwords required to access the different accounts. He uses a version of the Leet alphabet, shown in the table below, to create these passwords. So, for example, LAST could be translated as 1457. To access his League of Legends account online, he makes the password by translating his hint word BLAZERS using the Leet alphabet.</p> <p>Take note that numbers combined with a symbol such as “!” or other similar symbols can still be counted separately.</p>

A	/- \ or ^ or 4 or @	N	\ or / or \ or //
B	3 or 8 or o	O	0 or () or [] or { }
C	(or < or K or S	P	2 or D
D) or o or > or <	Q	(,.) or kw
E	3	R	2 or Z or ?
F	= or ph	S	5 or 2 or \$
G	(or 9 or 6	T	+ or ' ' or 7
H	- or] - [or } - { or (-) or } - (or #	U	_
I	1 or or ! or [V	/ or \ or V or /
J	_	W	W or \ \ or / or \ / or \ \ / or //
K	< or / < or \ < or {	X	> < or } {
L	_ _ or or 1	Y	` / or ' / or j
M	\ or / \ or ' or (V) or / \ or / \ or / \	Z	2 or (\)

If the word BLAZERS is translated and the numbers are added up, which one of the following totals is not a possibility?

- A. 22
- B. 19
- C. 25
- D. 17

26

Olivia and Zion are two friends who communicate with each other in the form of a code. Both of them are really good at maths, hence, they incorporated numbers in the way they write their codes.

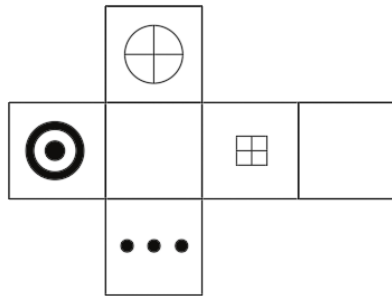
In their code, each letter in the alphabet is assigned with a number where number 1 is assigned to letter A, number 2 for letter B, and so on up until letter Z. For every subsequent letter, the assigned number for that specific letter is added with 3. This means that if the letter “A” appears thrice, the third “A” is written as “7” ($1+3+3 = 7$). For example, writing the word “AMAZON” using their code will be “1134261514”.

Olivia is about to write to Zion with the following message:

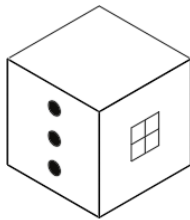
“FACTORIES POLLUTE THE ENVIRONMENT.”

How will Olivia write the word ENVIRONMENT?

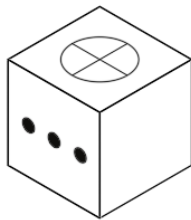
	<p>A. 1414212211111713173032</p> <p>B. 1414222221211713172832</p> <p>C. 1414121121211718172029</p> <p>D. 1414221221211713172029</p>
27	<p>A special code uses these two rules in encoding words:</p> <ol style="list-style-type: none"> 1. For letters in an <u>odd</u> position, the code will be the letter in its position if the alphabet was reversed. (A will become Z) 2. For letters in an <u>even</u> position, the code will be the letter found 2 steps before it. (C will become A) <p>For example, CRATE is coded as XPZRY, and TRADE is coded as GPZBV.</p> <p>How would you code ADULTHOOD?</p> <p>A. ZBFJGFLMN</p> <p>B. ZBFJGFLMW</p> <p>C. ZBEJGFIMW</p> <p>D. ZBFJCFLNW</p>
28	<p>A net with different sides is shown below.</p> <p>If the net was folded into a cube, which of the following would be a possible output?</p>



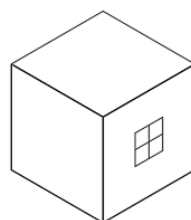
A.



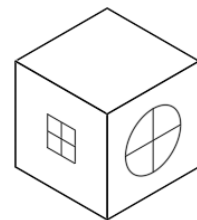
B.



C.



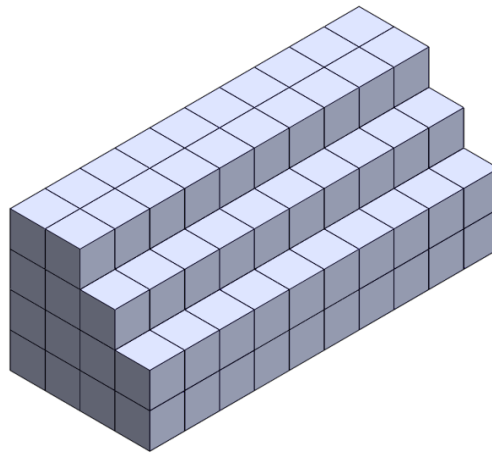
D.



29

A staircase is made from 130 cubes fitted tightly together in the arrangement below.

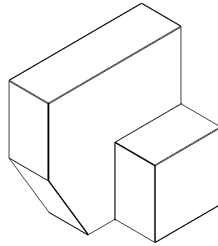
The pyramid is fully immersed in quick-drying paint. All the exposed faces become covered in paint, but the inner ones remain unpainted.



How many cubes have at least one side painted?

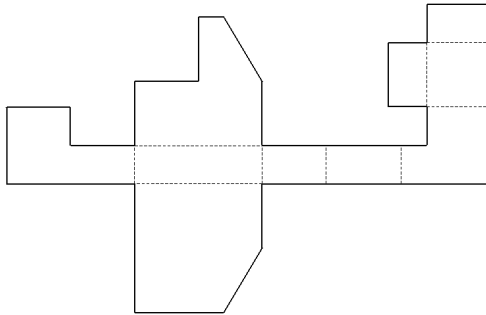
- A. 98
- B. 104
- C. 106
- D. 114

Please refer to the following object as shown below.

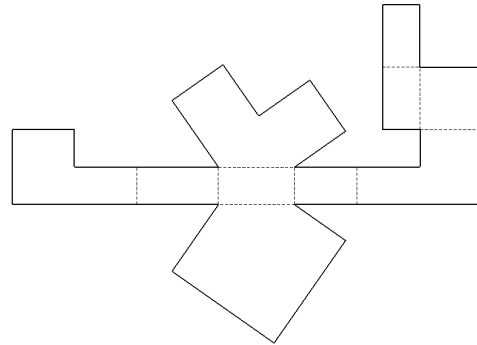


Which of the nets below CAN be folded up to form the object as shown above?

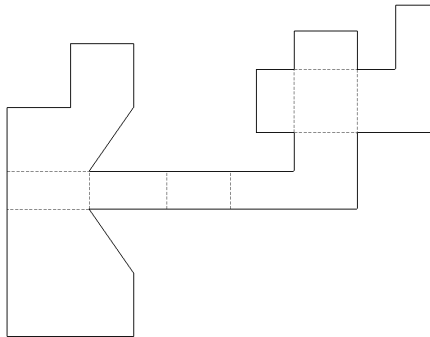
A



B



C



D

