
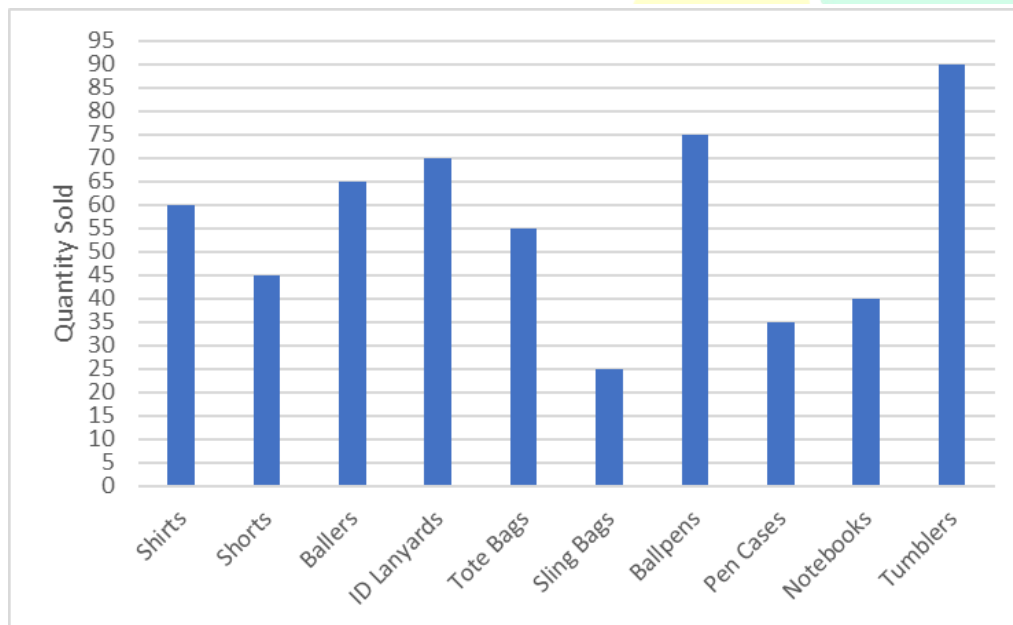


NO.	QUESTION
1	<p>Whenever Denise pays close attention to the class discussion, she finds the assessment easy.</p> <p><b>If the above statement is true, which of the following statements must also be true?</b></p> <ul style="list-style-type: none"> <li>A. If Denise finds the assessment easy, she will pay close attention to the class discussion.</li> <li>B. Denise finds the assessment easy only when she pays close attention to the class discussion.</li> <li>C. If Denise does not find the assessment easy, she will not pay close attention to the class discussion.</li> <li>D. Denise will surely find the assessment easy if she pays close attention to the class discussion.</li> </ul>
2	<div style="border: 1px solid black; padding: 10px; margin-bottom: 10px;"> <p>There are no other flowers found in Liza’s garden but lilies. Lilies are flowering plants. Most lilies grow from a bulb, which in some lilies develops into a rhizome, which carries small bulbs.</p> </div> <p><b>If the information in the box is true, whose reasoning is correct?</b></p> <p>Jonas: “If a plant has a bulb and it is found in Liza’s garden, it surely is a lily.”</p> <p>Nick: “If a flower has a bulb and it is found in Liza’s garden, then that flower is a lily.”</p> <ul style="list-style-type: none"> <li>A. Jonas only</li> <li>B. Nick only</li> <li>C. Both Jonas and Nick</li> <li>D. Neither Jonas nor Nick</li> </ul>
3	<p>In a group of six people, two belong to the dance troupe.</p> <p>Frahn: “It is Justin and Trisha.”</p> <p>Trisha: “It is Frahn and Justin.”</p> <p>Justin: “It is Trisha and Tom.”</p> <p>Cherry: “It is Tom and Justin.”</p> <p>Tom: “It is Amber and Cherry.”</p> <p>Amber: “I prefer to be silent about the matter”</p> <p>One person lied about both. Four people correctly named one person but incorrectly guessed the other.</p> <p><b>Who among the group belongs to the dance troupe?</b></p> <ul style="list-style-type: none"> <li>A. Amber and Justin</li> <li>B. Trisha and Amber</li> <li>C. Frahn and Trisha</li> <li>D. Justin and Cherry</li> </ul>

4	<p>Five contestants in a declamation contest—Martin, Othello, Pin, Queen, and Susy—will give their speeches in front of a judging panel during five consecutive time slots, one contestant per time slot. Each contestant will give his/her speech exactly once. The order of the contestants must adhere to the following conditions:</p> <p>If Susy gives her speech first, Martin gives his speech last. If Martin gives his speech second, Queen gives her speech first. Martin does not give his speech first. Pin gives his speech immediately after Othello gives his speech.</p> <p><b>Othello can give his speech in any of the five-time slots EXCEPT?</b></p> <ul style="list-style-type: none"> <li>A. Second</li> <li>B. Third</li> <li>C. Fourth</li> <li>D. Fifth</li> </ul>
5	<p>Yakult is a sweetened probiotic milk beverage fermented with the <u>Lactobacillus casei Shirota</u> bacterium strain. It helps to avoid constipation, maintain good gut health, lower the risk of upper respiratory tract infections, reduce anxiety and stress, and improve general health, among other things. Doctors are requiring parents to make their kids drink Yakult everyday for them to have probiotics in their bodies.</p> <p><b>Which of the following statements, if true, best strengthens the above argument?</b></p> <ul style="list-style-type: none"> <li>A. It does not have to be Yakult because there are other foods and drinks that can give probiotics to children's bodies.</li> <li>B. Children love the taste of yakult, so it wouldn't be a <u>problem</u> for parents to make them drink one.</li> <li>C. Parents have the <u>capability</u> to add Yakult to their budget, especially if it's needed.</li> <li>D. Children <u>require</u> probiotics because they <u>aid digestion</u> and the immune system, making them less prone to diarrhea and constipation, which are typical during potty training.</li> </ul>
6	<div style="border: 1px solid black; padding: 10px; margin-bottom: 10px;"> <p>It was a Monday morning and Henry was running late for school. His mom told him to eat quickly before leaving the house. Henry said he didn't have time for breakfast and would just eat lunch at school. His mom got mad and said,</p> </div> <div>  </div> <p><b>Mom:</b> "What do you mean you don't have time to eat breakfast? If you don't eat breakfast, you won't be able to think and function well in class. <u>After that, you</u> can't answer your exams properly and when that happens, you won't have a diploma to get yourself a job and you'll end up penniless."</p> <p><b>Which of the following best expresses the flaw in the above argument?</b></p> <ul style="list-style-type: none"> <li>A. Henry's mom chose to focus on two extreme options when in fact she could have just allowed Henry to eat lunch at school.</li> <li>B. Henry <u>thinks</u> that not eating breakfast is not that bad because his classmates told him so.</li> <li>C. Henry's mom assumed that not eating breakfast would lead to a chain of future events with bad outcomes, even though there is no logical evidence to support the claim.</li> <li>D. She chose to invalidate Henry's argument about eating breakfast by attacking him personally.</li> </ul>

7

PiChE is selling different merchandise to raise funds for the Chemical Engineering Department. The following design merchandise was released: Shirts, Shorts, Ballers, ID Lanyards, Tote Bags, Sling Bags, Ballpens, Pen Cases, Notebooks, and Tumblers. Each merchandise has three different variants, where each has different logos (three total logos). The bar graph below shows the number of merchandise sold. The table below shows the data of the number of merchandise sold for each given design, where some data are missing.



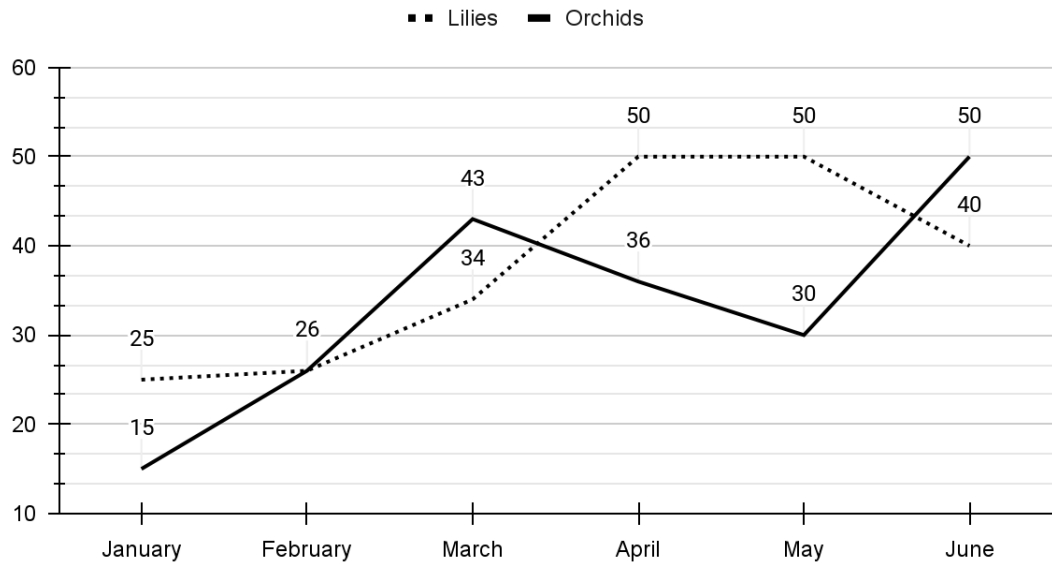
Design	Logo 1	Logo 2	Logo 3
Shirts		35	10
Shorts	10	10	
Ballers	12		40
ID Lanyards	10		25
Tote Bags		20	15
Sling Bags	15		8
Ballpens	31	14	
Pen Cases	10	5	
Notebooks	7		25
Tumblers		10	35

If the total number of merchandise sold is 560, how many have the 3rd Logo design on them?

- A. 233
- B. 235
- C. 237
- D. 239

8 Due to unpredictable weather, the supply of lilies and orchids varies each month. Using a line graph, the local flower shop tracked the number of lilies and orchids they had available for the first half of the year.

Supply of lilies and orchids (in thousands)



What is the difference between the supply of orchids in April and May?

- A. 6 000
- B. 3 000
- C. 5 000
- D. 2 000

9 Below is a summary of the paintings the NU Gallery sold in the first six months of 2020 and 2021.

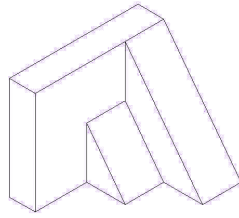
	January	February	March	April	May	June
2020	45	58	91	48	82	74
2021	88	90	58	93	99	120

Which of the given months in 2021 had the biggest increase in sales compared to the previous month?

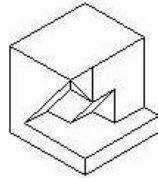
- A. April
- B. June
- C. March
- D. May

10

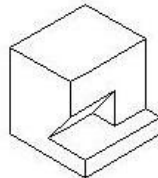
A piece of a puzzle is shown below-



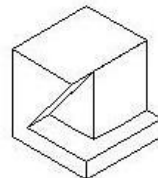
Which one of the following pieces will fit with the piece above to make a complete cube?



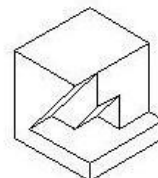
a



b



c



d

11

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, the price is reasonable because the quality and authenticity of every pair of shoes that is sold there is certified in writing.

**Which of the following statements, if true, best strengthens the above argument?**

- A. Many shoe stores, including Nike, provide written quality certification.
- B. Nike's shoe certifications are granted by shoe experts with years of experience.
- C. Nike sells higher-quality shoes than other stores.
- D. Independent shoe experts certify Nike shoes.

12

For extra security and privacy, James uses the half-reversed alphabet when writing letters to his brother. It is a code wherein the letters in the first half of the alphabet (A-M) are encoded as the second half (N-Z). The second half of the alphabet is also encoded as the first half. So when coding and decoding, James and his brother know that A stands for N, N stands for A, B stands for O, O stands for B, and so on.

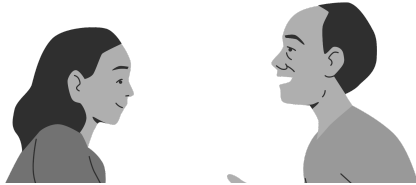
For example, CAT would be encoded in James' letters as PNG.

**How would James encode the word ALLOW?**

- A. NYYBJ
- B. NXXBK
- C. BYYPX
- D. NBBPK

13

The moon's gravity is about  $\frac{1}{6}$ th as powerful as the gravity of the Earth. This also means that the weight of an object on the moon is also  $\frac{1}{6}$ th 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.



**Luke:** "A 60-kilogram human here on Earth is just approximately 10 kilos of weight on the moon. What a fascinating idea!"

**Rose:** "A falling object is slower on the moon than a falling object on Earth."

**If the information in the box is true, whose reasoning is correct?**

- A. Luke only
- B. Rose only
- C. Both Rose and Luke are correct.
- D. Neither Rose nor Luke is correct.

14

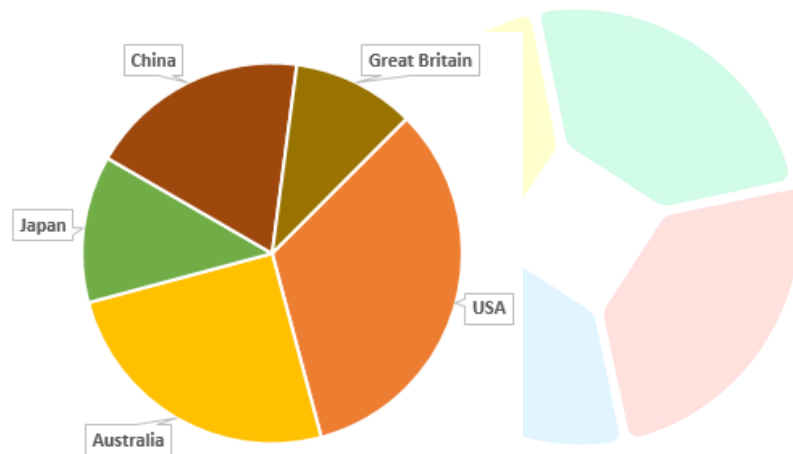
An asteroid collision likely caused the extinction of dinosaurs. Large-scale volcanic eruptions and slow climate shifts spanning millions of years may have been involved. Whatever the cause, the dinosaur extinction left holes in global ecosystems.

**Which of the following best expresses the main conclusion of the argument?**

- A. Volcanic eruptions are possible reasons for dinosaur extinction.
- B. No one really knows the cause of dinosaur extinction, even after billions of years.
- C. The dinosaurs were not able to cope with the climate shifts, which is why they became extinct.
- D. Dinosaur extinction created gaps in world ecosystems, regardless of what caused it.

15

There are 960 Paralympians who participated in the Paralympic Games. The top 5 countries with the greatest 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

16

In a certain code that Steve uses:

'Beautiful Reward Lighter Teacher' is written as 'i@5 w#2 h@2 c@3'

Steve wants to send a secret message to his sister, Jen, without anyone noticing. He wants to say that he is "Nervous".









What is the code for the message?

- A. v@3
- B. v#3
- C. r@2
- D. R#2


**17** A sudoku puzzle is shown below where instead of numbers, figures are used. The rules of this puzzle are as follows:


- Rule 1 - Each row must contain each of the four figures, without repetitions.  
 Rule 2 - Each column must contain each of the four figures, without repetitions.  
 Rule 3 - The figure can only occur once in each block (2 by 2 blocks).


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?**


			
			
			
			

- A


- B


- C


- D



**18** 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:

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

**If Lesley chooses the cheapest sandal store, how much will remain if she pays through her ATM card with a balance of \$4,999?**

- A.

\$2,924
- B.

\$8,424
- C.

\$4,434
- D.

\$3,424



19

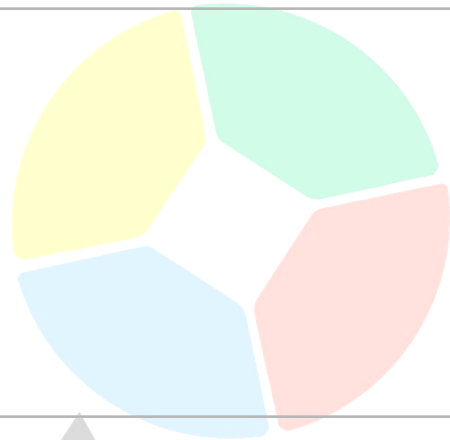
Many scooters are trucks. All trucks are trains.

Conclusions:

- I. Some scooters are trains.
- II. No truck is a scooter.

Which of the following conclusions follow?

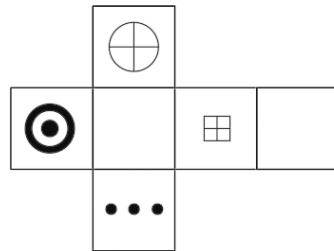
- A. I only
- B. II only
- C. Both I and II.
- D. Neither I nor II.



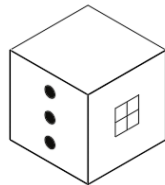
20

A net with different sides is shown below.

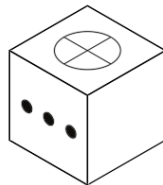
If the net was folded into a cube, which of the following would be a possible output?



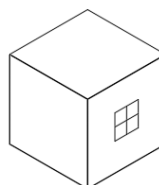
A.



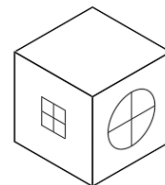
B.



C.



D.

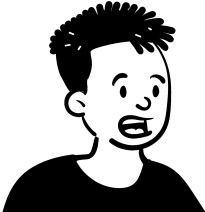


21

In most jewellery stores, the person assessing exquisite diamonds is also the person selling them, which explains why an assessor may claim that a diamond is of higher quality than it is. However, because all diamonds sold at Crystal Cove have written certification, you can be assured of a fair price when buying a diamond from Crystal Cove.

Which of the following statements, if true, best strengthens the above argument?

- A. Crystal Cove isn't the only jeweller that certifies its diamonds.
- B. The diamond certifications offered by Crystal Cove are written by industry professionals.
- C. Crystal Cove sells higher-quality diamonds than other stores.
- D. Prices of the most expensive diamonds can change by hundreds of dollars from day to day.

22	<p>The comet theory is a hypothetical explanation for the extinction of the dinosaurs. A large enough comet colliding with Earth could have created a cloud of dust that engulfed the planet and cooled it long enough to result in the dinosaur's demise.</p> <p><b>Which of the following statements, if true, best weakens the above argument?</b></p> <ul style="list-style-type: none"> <li>A. Dinosaur skeletons can't tell us if they died from a dust cloud.</li> <li>B. Other species during the dinosaur era didn't go extinct at the same time.</li> <li>C. Various dinosaur-era animals that were similar in physiology and habitat did not go extinct.</li> <li>D. A comet's impact on plants and animals is unknown.</li> </ul>
23	<p>Employees enjoy some form of privileges while working in a company. They can avail bonuses, sick leaves, paid vacations, paid absences, and the opportunity to leave early because of sudden emergencies.</p> <p>Yesterday, Sean asked permission from the manager to leave early because his wife needed him in the hospital.</p>  <p><b>Mark:</b> "If we permit Sean from leaving the office early because of a family emergency, soon we'll have a lot of workers wanting to go home early for the same reason."</p> <p><b>Which of the following best expresses the flaw in Mark's argument?</b></p> <ul style="list-style-type: none"> <li>A. Mark is adamant that it will lead to a chain reaction resulting in unintended consequences.</li> <li>B. Mark believes in an idea or proposition simply because it is widely accepted.</li> <li>C. Mark gives people only two options and forces them to choose between them.</li> <li>D. Mark argues that his idea is true because it is backed by experts in the industry.</li> </ul>
24	<p>Despite many reliable studies proving it causes deadly diseases, smoking is undeniably common. The government has tried to reduce the number of smokers with advertising campaigns that explain the consequences of smoking, but the campaigns have been ineffective. The government should try advertising alternatives, such as the government could make cigarettes prohibitively expensive.</p> <p><b>Which of the following best expresses the main conclusion of the argument?</b></p> <ul style="list-style-type: none"> <li>A. Despite government efforts to reduce smoking, the habit remains popular.</li> <li>B. Cigarette smoking has been linked to a number of diseases that can be fatal.</li> <li>C. Advertising can't reduce cigarette use.</li> <li>D. The government should change its strategy to reduce cigarette smoking.</li> </ul>

25

Michael wants to buy 12 gold bracelets from a jewellery shop. For convenience, he wants to buy all bracelets from one shop only. Listed below are the different jewellery stores and their various promo discounts:

Jewellery Store	Price per bracelet	Promo Discount
The Finest Designs	\$320	20% off on total purchases
Goldmark	\$330	Buy 5, Get 1 Free
Bevilles	\$310	\$399 discount on total price

Michael is supposed to buy from the jewellery store that offers the most expensive price.

How much will the total price be?

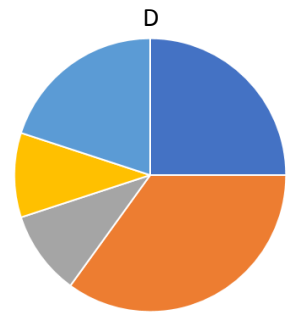
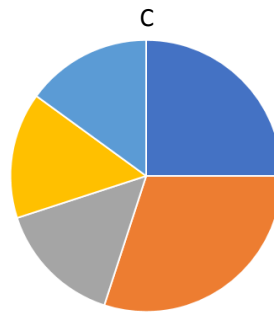
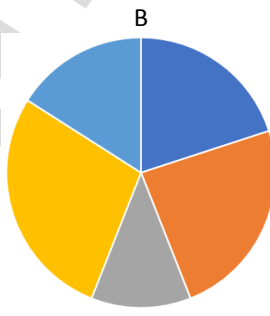
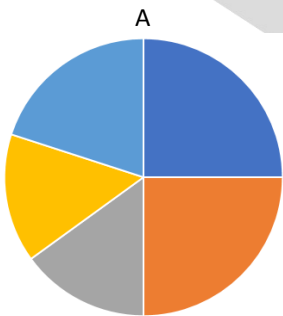
- A. \$3,072
- B. \$3,300
- C. \$3,321
- D. \$9,693

26

The Elementary Department conducted a survey on which school trip their students found the most serene view. The result is as follows:

School Trip	Votes
Ocean Park	125
Sydney Zoo	125
Art Museum	75
Heritage Centre	75
Opera House	100

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



27

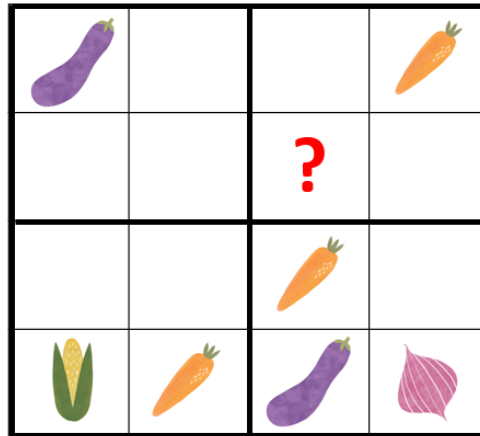
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Rule 3 - The figure can only occur once in each block (2 by 2 blocks).

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?**



- A. Carrot
- B. Eggplant
- C. Either the corn or the onion
- D. Either the corn or the carrot

28

Mr Yuki uses similar passwords for his five bank accounts. All of his passwords consist of 8 characters. He is slothful in making unique passwords to each of his bank accounts so makes sure that the password for his BDO bank account has exactly one different character from the passwords of his other accounts. His passwords are shown below:

Security Bank: !rMK8\*#Z

Metrobank: !rMK9\*#Z

BPI: !rMK9\*%Z

Australian National Bank: !cMK9\*#Z

**What is Mr Yuki's BDO password?**

- A. !rMK9\*#Z
- B. !rMK9\*%Z
- C. !cMK8\*#Z
- D. !rMK9\*%Z

Sydney has been experiencing heavy traffic congestion recently because of the newly mandated road widening projects to prepare for the upcoming FIFA World Cup to be held in the city.

Unlike the past years when road traffic is relaxed, this year has been quite a challenge for Royce who is compelled to travel by motorcycle instead of using public transportation. Royce does not want to be late so he drives his motorcycle every time heavy traffic congestion happens.



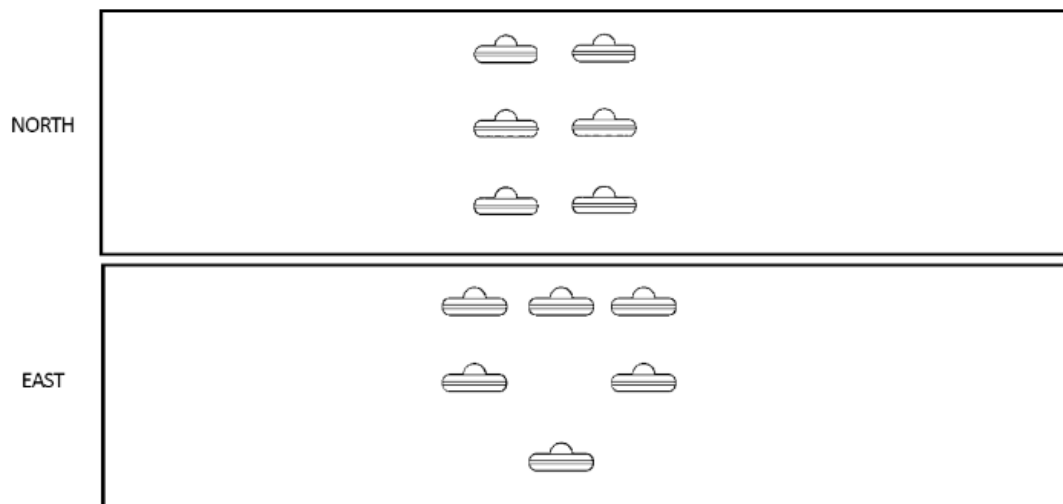
**Gerald:** "Yesterday's traffic was very heavy so Royce must have ridden his motorcycle."

**Zyndee:** "There was no heavy traffic earlier today so Royce did not ride his motorcycle. Instead, he used public transportation."

**If the information in the box is true, whose reasoning is correct?**

- A. Gerald only
- B. Zyndee only
- C. Both Gerald and Zyndee
- D. Neither Gerald nor Zyndee

A fleet of UFOs were observed, and pictures were taken of them at the same time from different places: one looking from the north and the other looking from the east.



**What is the largest number of UFOs that could be in the fleet?**

- A. 12
- B. 14
- C. 15
- D. 21