

TCS NQT

2025

NUMERICAL ABILITY

A café owner blends two types of coffee beans—one costing Rs. 126 per kg and another costing Rs. 135 per kg—with a premium third variety to create a special house blend. The owner mixes these in the ratio 1:1:2, meaning the premium variety is used twice as much as the others.

After selling the mixture, the café owner finds that the final blend is valued at Rs. 153 per kg. What is the price per kg of the premium coffee bean?

- A) Rs. 175.50**
- B) Rs. 180**
- C) Rs. 182.50**
- D) Rs. 170.5**

EXPLANATION

Let the price of the third variety of coffee be Rs. x per kg.

Since the three varieties are mixed in the ratio 1:1:2, the weighted average formula is:

$$\frac{(126 \times 1) + (135 \times 1) + (x \times 2)}{1 + 1 + 2} = 153$$

$$\frac{126 + 135 + 2x}{4} = 153$$

$$126 + 135 + 2x = 612$$

$$261 + 2x = 612$$

$$2x = 612 - 261$$

$$2x = 351$$

$$x = \frac{351}{2} = 175.50$$

A juice vendor has a container filled with a fruit syrup mixture, where 3 parts of the mixture are pure fruit juice and 5 parts are sugar syrup. The vendor wants to adjust the composition by replacing some of the mixture with pure fruit juice so that the final blend is half juice and half syrup.

What fraction of the mixture must be removed and replaced with pure fruit juice to achieve this balance?

- A) $\frac{1}{3}$**
- B) $\frac{1}{4}$**
- C) $\frac{1}{5}$**
- D) $\frac{1}{7}$**

EXPLANATION

Suppose the container initially contains 8 litres of liquid.

Let x litres of this liquid be replaced with water.

Quantity of water in new mixture $= 3 - 3x/8 + x$ litres

Quantity of syrup in new mixture $= 5 - 5x/8$ litres

$$3 - 3x/8 + x = 5 - 5x/8$$

$$5x + 24 = 40 - 5x$$

$$10x = 16$$

$$x = 8/5.$$

So, part of the mixture replaced $= 8/5 \times 1/8 = 1/5$.

Two bullet trains, Train Alpha and Train Beta, are running on high-speed tracks connecting two major cities 600 km apart.

- Train Alpha departs from City X at 6:00 AM at a speed of 100 km/h.**
- Train Beta departs from City Y at 8:00 AM at a speed of 120 km/h.**
- Both trains are moving towards each other on the same track at a constant speed.**

At what time will the two trains cross each other?

- A) 9:30 AM**
- B) 9:45 AM**
- C) 9:49 AM**
- D) 10:00 AM**

EXPLANATION

1. Train Alpha travels alone for 2 hours (6:00 AM - 8:00 AM)

- **Distance covered = $100 \times 2 = 200$ km**
- **Remaining distance = $600 - 200 = 400$ km**

2. Relative speed of both trains (since they move toward each other):

- **$100 + 120 = 220$ km/h**

3. Time taken to meet:

- **$400 \div 220 = 1.82$ hours \approx 1 hour 49 minutes**

4. Meeting time:

- **$8:00 \text{ AM} + 1 \text{ hour } 49 \text{ minutes} = 9:49 \text{ AM}$**

Considering stoppages, which train has the lowest effective speed?

- A) Train Alpha
- B) Train Beta
- C) Train Gamma
- D) Train Epsilon

The following table provides information about five different trains running between City X and City Y (600 km apart).

Train Name	Speed (km/h)	Departure Time (from City X)	Stops (Minutes)	Delay at Arrival (Minutes)
Train Alpha	100	6:00 AM	0	0
Train Beta	120	8:00 AM	2 stops (10 min each)	5 min
Train Gamma	90	7:00 AM	1 stop (15 min)	8 min
Train Delta	150	9:00 AM	0	0
Train Epsilon	110	7:30 AM	3 stops (5 min each)	10 min

EXPLANATION

Train Alpha:

$$\text{Total Time} = 6 + \frac{0}{60} = 6.00 \text{ hours}$$

$$\text{Effective Speed} = \frac{600}{6.00} = 100 \text{ km/h}$$

Train Beta:

$$\text{Total Time} = 5 + \frac{25}{60} = 5.42 \text{ hours}$$

$$\text{Effective Speed} = \frac{600}{5.42} \approx 110.7 \text{ km/h}$$

Train Gamma:

$$\text{Total Time} = 6.67 + \frac{23}{60} = 7.05 \text{ hours}$$

$$\text{Effective Speed} = \frac{600}{7.05} \approx 85.1 \text{ km/h}$$

Train Delta:

$$\text{Total Time} = 4 + \frac{0}{60} = 4.00 \text{ hours}$$

$$\text{Effective Speed} = \frac{600}{4.00} = 150 \text{ km/h}$$

Train Epsilon:

$$\text{Total Time} = 5.45 + \frac{25}{60} = 5.87 \text{ hours}$$

$$\text{Effective Speed} = \frac{600}{5.87} \approx 102.3 \text{ km/h}$$



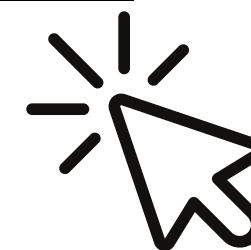
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What is the total number of male employees across all departments?

Options:

- A) 428
- B) 438
- C) 458
- D) 468

A company has **four departments** (HR, Finance, Marketing, and IT) with different numbers of employees. The table below provides data on **total employees** and **percentage of female employees** in each department.

Department	Total Employees	% of Female Employees
HR	120	60%
Finance	200	40%
Marketing	180	50%
IT	300	30%

EXPLANATION

Female Employees:

HR: 72, Finance: 80, Marketing: 90, IT: 90

Male Employees:

HR: 48, Finance: 120, Marketing: 90, IT: 210

Total Male Employees: $48+120+90+210=468$

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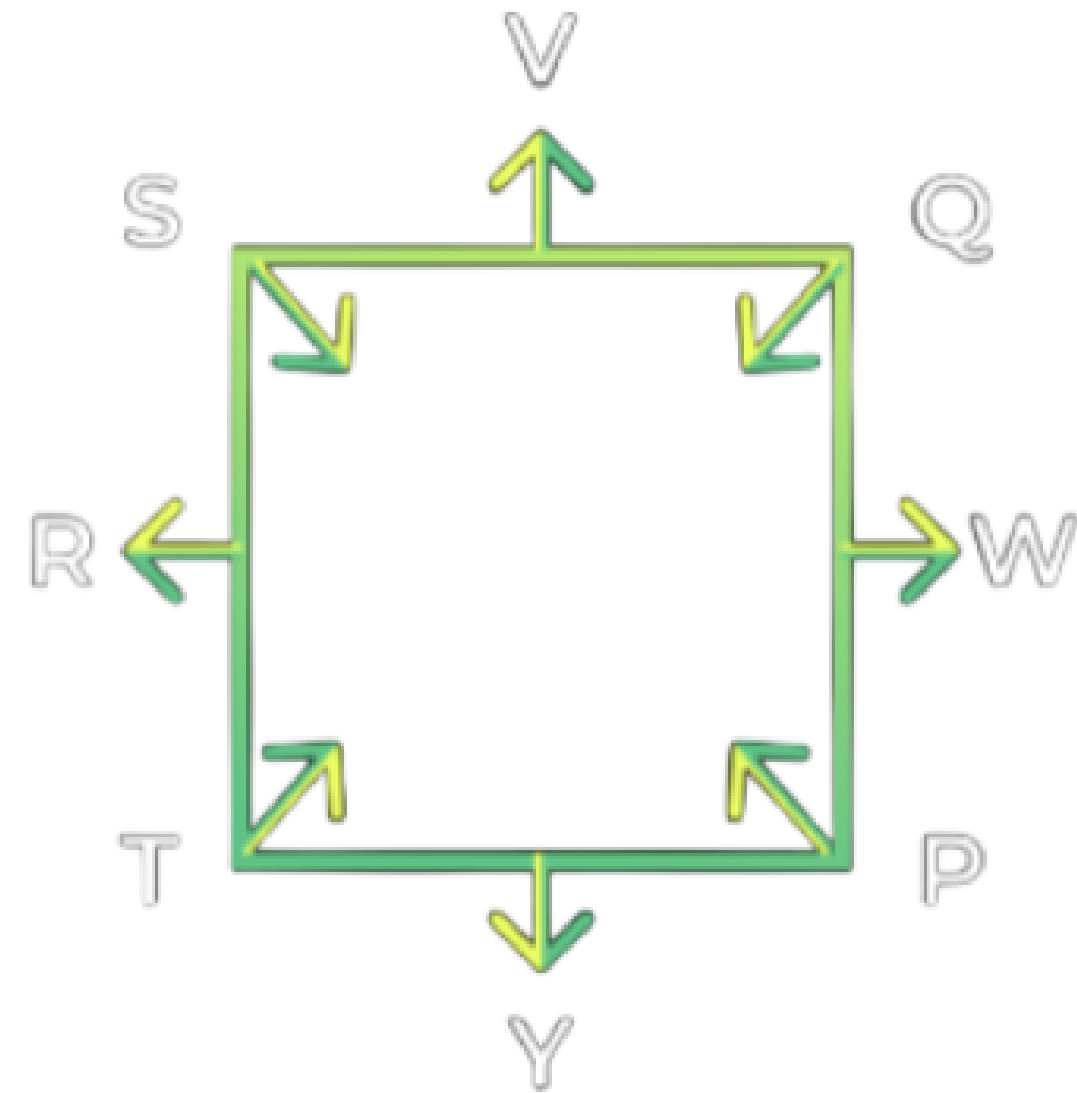
REASONING ABILITY

Eight friends P, Q, R, S, T, V, W and Y are sitting around a square table in such a way that four of them sit at four corners of the square while four sit in the middle of each of the four sides. The ones who sit at the four corners face the centre while those who sit in the middle of the sides face outside. P, who faces the centre, sits third to the right of V. T, who faces the centre, is not an immediate neighbour of V. S sits between V and W. S sits second to the right of Q. Q faces the centre. R is not an immediate neighbour of P.

Who sits second to the left of Q?

- A)P
- B)T
- C)V
- D)Y

EXPLANATION

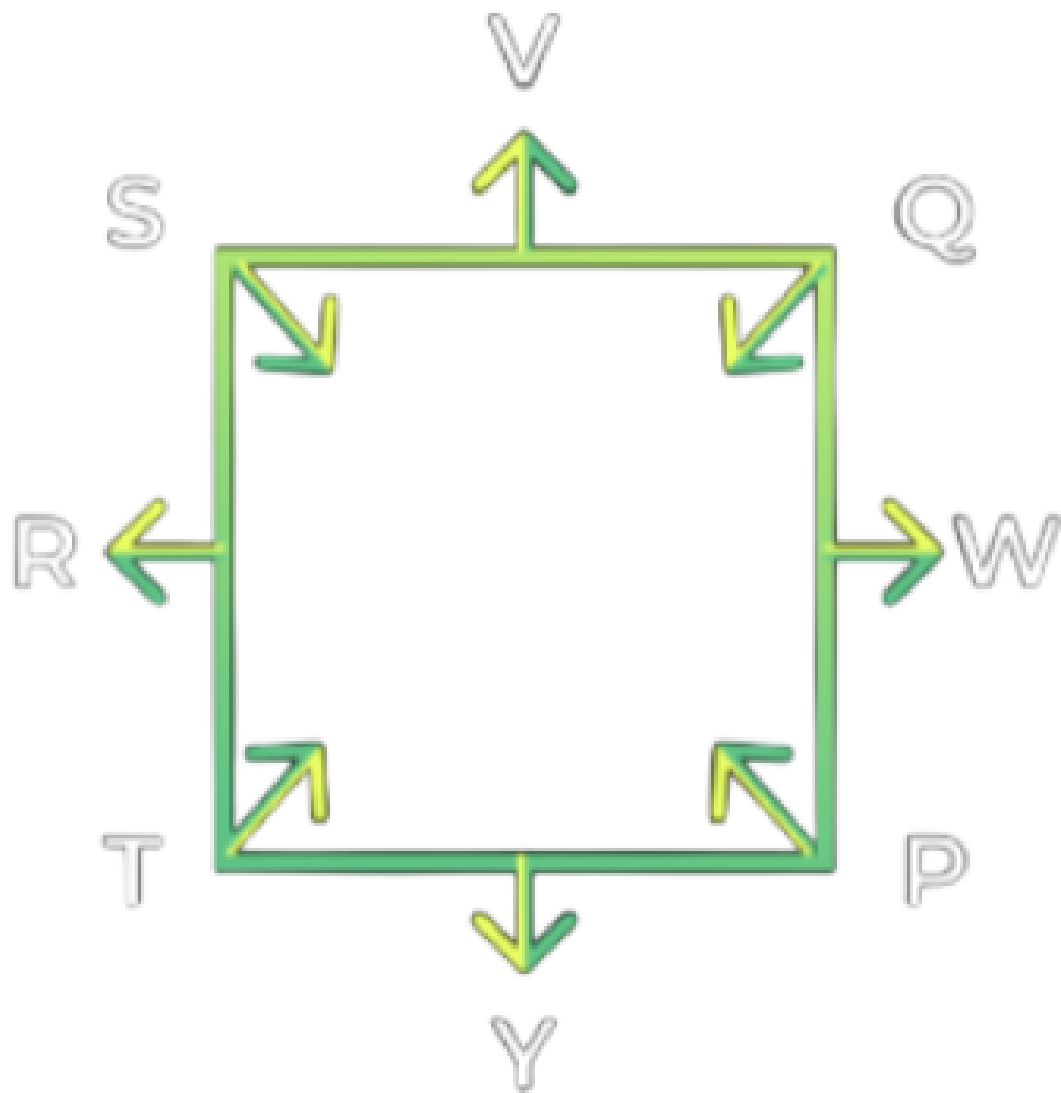


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Which of the following is true regarding R?

- A) R faces the centre
- B) R sits exactly between T and S
- C) R is an immediate neighbour of V
- D) Q sits third to left of R

EXPLANATION



**Aditya says, "le po ki ba" when he wants to convey that "friends make life live".
Laxman says, "te ki mo ba" when he wants to convey that "without friends life impossible". Bharat says, "lo mo se te" when he wants to convey that "without trouble gain impossible". Shatrughan says, "st ba po lo" when he wants to convey that "life make trouble joy".**

Which of the following is most probably the code for "life gives joy"?

- A. st lo ba
- B. ba fo st
- C. le po st
- D. ba fo go

EXPLANATION

Word	Code
life	ba
friends	ki
make	po
live	le
trouble	lo
gain	se
joy	st
without	mo/te
impossible	te/mo



Aditya says, "le po ki ba" when he wants to convey that "friends make life live". Laxman says, "te ki mo ba" when he wants to convey that "without friends life impossible". Bharat says, "lo mo se te" when he wants to convey that "without trouble gain impossible". Shatrughan says, "st ba po lo" when he wants to convey that "life make trouble joy".

What is the code for "mission impossible"?

- A. mo fi
- B. te fi
- C. fi se
- D. Either A or B

EXPLANATION

Word	Code
life	ba
friends	ki
make	po
live	le
trouble	lo
gain	se
joy	st
without	mo/te
impossible	te/mo

Find the next term in the series:

B, E, H, K, ?

A) N

B) M

C) O

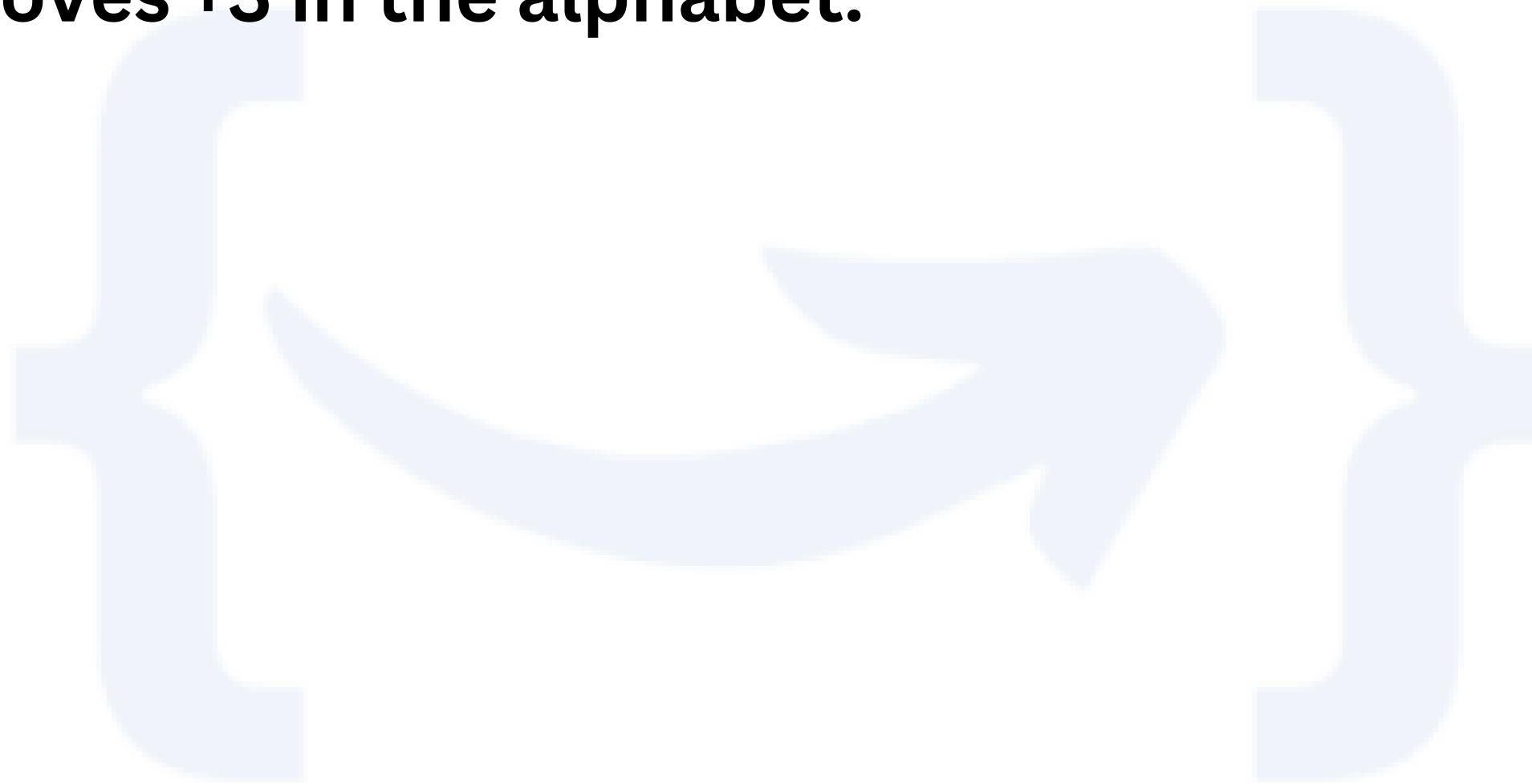
D) P



EXPLANATION

Each letter moves +3 in the alphabet:

- B → E (+3)
- E → H (+3)
- H → K (+3)
- K → N (+3)



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VERBAL ABILITY

Which word does not belong with the others?

A) Symphony

B) Concerto

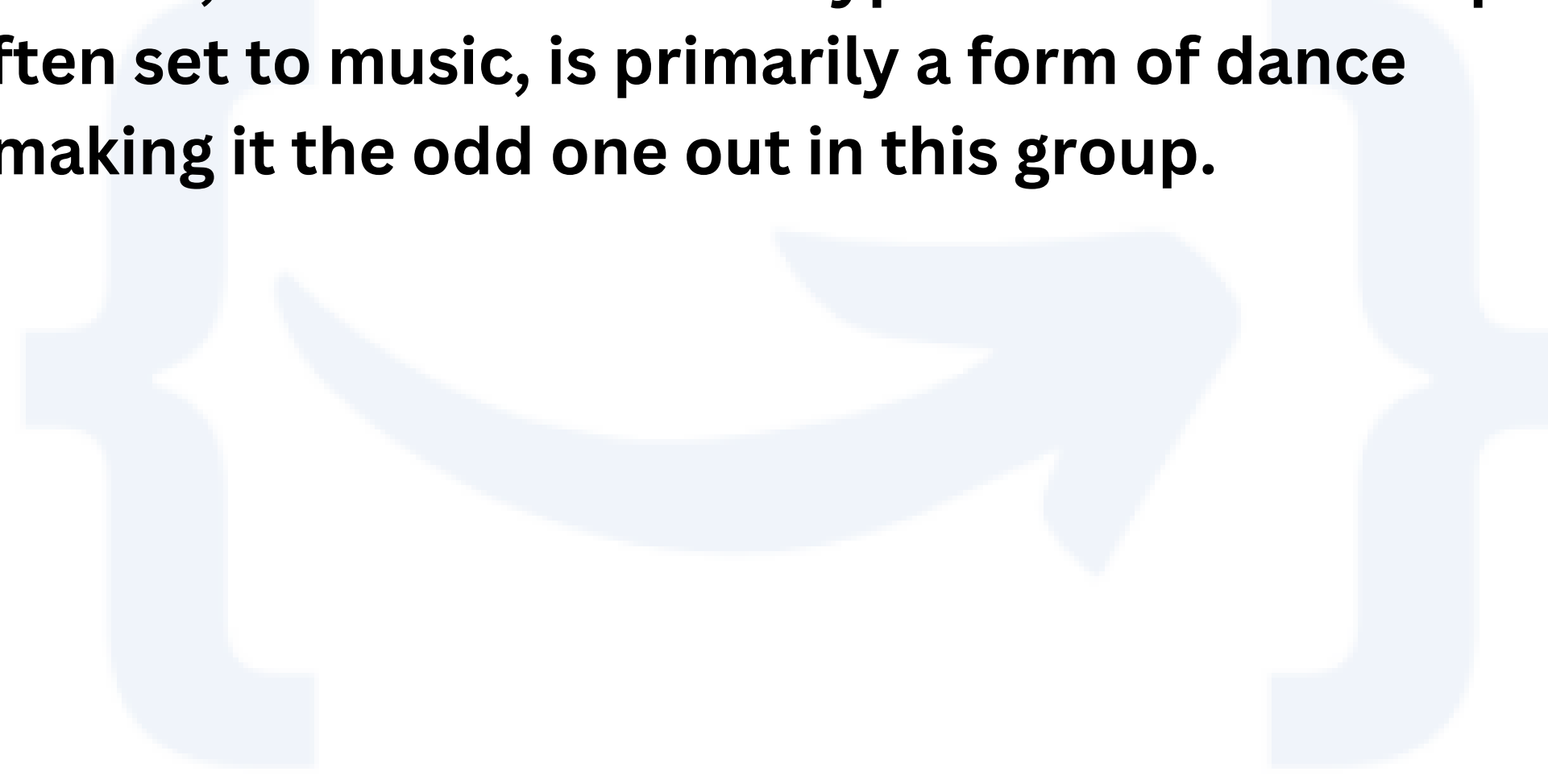
C) Sonata

D) Ballet



EXPLANATION

Symphony, concerto, and sonata are all types of musical compositions. Ballet, while often set to music, is primarily a form of dance performance, making it the odd one out in this group.



"The human brain is remarkably plastic. Even in adulthood, it can reorganize neural pathways, create new connections, and even generate new neurons. For decades, scientists believed that the adult brain was relatively fixed, but research in the late 20th century revealed that neuroplasticity continues throughout life, though it is more pronounced in youth."

According to the passage, which statement is TRUE?

- A) The human brain cannot create new connections in adulthood**
- B) Scientists have always known about neuroplasticity in adults**
- C) Neuroplasticity is equally pronounced in youth and adulthood**
- D) The adult brain can generate new neurons**

EXPLANATION

Answer: D) The adult brain can generate new neurons

Explanation: The passage explicitly states that the adult brain can "even generate new neurons." Option A contradicts the passage, which states the brain can "create new connections." Option B is false because the passage indicates that "for decades, scientists believed that the adult brain was relatively fixed." Option C contradicts the statement that neuroplasticity "is more pronounced in youth."

Arrange the following sentences to form a coherent paragraph:

- 1. However, the technology also raises serious ethical concerns.**
- 2. Artificial intelligence has advanced rapidly in recent years.**
- 3. These concerns include privacy issues, job displacement, and autonomous weapon systems.**
- 4. It has transformed industries from healthcare to transportation.**

- A) 2, 4, 1, 3**
- B) 2, 1, 4, 3**
- C) 4, 2, 3, 1**
- D) 1, 3, 2, 4**

EXPLANATION

Answer: A) 2, 4, 1, 3

Explanation: The paragraph should begin with the introduction of the topic (AI advancement), then provide examples of its impact, then transition to concerns, and finally detail those concerns. Sentence 2 introduces the topic of AI advancement. Sentence 4 elaborates on how AI has transformed industries. Sentence 1 transitions to ethical concerns using "However." Sentence 3 details the specific ethical concerns mentioned in sentence 1. Option A provides this logical flow.

Choose the sentence with the correct usage of the word "Precede":

- A) The teacher asked students to precede with caution when conducting the experiment.**
- B) The king was preceded by his royal guards when entering the hall.**
- C) We need to take precede over our competitors in the market.**
- D) Her intelligence preceded her academic success.**

EXPLANATION

Answer: B) The king was preceded by his royal guards when entering the hall.

Explanation: "Precede" means to come before something in time, order, or position. In sentence B, the royal guards came before (preceded) the king, which is the correct usage. Sentence A incorrectly uses "precede" instead of "proceed." Sentence C incorrectly uses "precede" instead of "precedence." Sentence D incorrectly suggests that intelligence came before academic success temporally, when the intended meaning is likely that intelligence caused or led to academic success.

MARATHON is to RUNNER as REGATTA is to:

- A) Swimmer**
- B) Sailor**
- C) Race**
- D) Water**



EXPLANATION

Answer: B) Sailor

Explanation: This analogy tests the relationship between an event and its participant. A marathon is a racing event in which runners participate. Similarly, a regatta is a series of boat races in which sailors participate. The relationship is "event and participant." Option A (swimmer) participates in swimming events, not regattas. Option C (race) is a category that includes regattas. Option D (water) is where regattas take place but not the participant.

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NUMERICAL ABILITY

HOMEWORK QUESTIONS

Q5. A chemical lab uses a mixture of acid and water at Rs. 7.62/litre. This mixture contains 5% acid. Another mixture containing 75% water costs Rs. 7.82/litre. How much does a researcher pay if they buy 5 litres of a mixture containing 18% acid?

- 1. Rs. 83.75**
- 2. Rs. 73.85**
- 3. Rs. 37.85**
- 4. Rs. 38.75**

Answer: Rs. 38.75

A metal workshop has an alloy of iron and zinc that contains 65% iron. A second alloy contains iron and zinc in the ratio 17:3. In what ratio should the two alloys be mixed so that the new mixture contains 4 times as much iron as zinc?

1. 4 : 5

2. 5 : 4

3. 1 : 3

4. 2 : 3

Answer: 1 : 3

A delivery worker traveled from a warehouse to a customer's location to deliver a package. He started on his scooter from the warehouse at a speed of 25 km/hr. However, after completing the delivery, his scooter broke down, forcing him to walk back to the warehouse at 4 km/hr. If the total travel time was 2 hours and 54 minutes, what is the distance between the warehouse and the customer's location?

- 1. 8 km**
- 2. 10 km**
- 3. 12 km**
- 4. 15 km**

10 km

1. What is the cost per kg for City A?

A) Rs. 25

B) Rs. 30

C) Rs. 35

D) Rs. 40

City	Shipments Sent	Avg. Weight per Shipment (kg)	Cost per kg (Rs.)	Total Revenue (Rs.)	Total Profit Earned (Rs.)
A	4,000	10	?	12,00,000	4,80,000
B	6,000	8	30	?	5,76,000
C	?	12	35	18,90,000	6,30,000
D	5,500	?	28	15,40,000	?

B) Rs. 30

5. What was the total profit earned from City D?

A) Rs. 5,50,000

B) Rs. 5,70,000

C) Rs. 5,90,000

D) Rs. 6,10,000

City	Shipments Sent	Avg. Weight per Shipment (kg)	Cost per kg (Rs.)	Total Revenue (Rs.)	Total Profit Earned (Rs.)
A	4,000	10	?	12,00,000	4,80,000
B	6,000	8	30	?	5,76,000
C	?	12	35	18,90,000	6,30,000
D	5,500	?	28	15,40,000	?

A) Rs. 5,50,000

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REASONING ABILITY

HOMEWORK QUESTIONS

Given below is the question followed by two statements, I and II, each containing some information. Decide which of the statement(s) is/are sufficient to answer the question.

Five persons - Rahul, Neha, Vikram, Sanya, and Kunal sit around a circular table, facing the center, not necessarily in that order. Who sits second to the right of Vikram?

Statements:

I. Rahul sits immediately to the right of Kunal, who is not a neighbor of Sanya.

II. Neha is to the immediate left of Sanya.

Options:

A. If only statement II is sufficient to answer the question.

B. If the data in both statements I and II together are necessary to answer the question.

C. If the data either in statement I alone or in statement II alone is sufficient to answer the question.

D. If only statement I is sufficient to answer the question.

B. If the data in both statements I and II together are necessary to answer the question.

In a certain code, if:J@K means j is k's daughter.

J%K means j is k's wife.

J + K means K is j's father.

J / K means K is J's mother.

A@B%C/D%E

How is B related to E in the given expression?

A. Mother-in-law

B. Son-in-law

C. Daughter-in-law

D. Mother

Answer: C. Daughter-in-law

95% of the students in a class have taken Data Science, 80% have chosen Artificial Intelligence, 84% have chosen Cybersecurity, and 90% have chosen Cloud Computing. What is the maximum and minimum percentage of people who have chosen all four subjects?

Options:

- A. 80% and 56%**
- B. 95% and 53%**
- C. 80% and 49%**
- D. 80% and 51%**

Answer: C. 80% and 49%

Among Alex, Bryan, Charlie, David, and Ethan, Bryan is the second tallest, and David is immediately taller than the shortest. Charlie is neither the tallest nor the shortest. Who among them is in the middle when they stand in the order of their heights?

Options:

- A. Charlie**
- B. Alex**
- C. David**
- D. Ethan**

A. Charlie

Find the missing term in the given series:

2A, 4D, 8H, 16M, 32S, ?

Options:

A. 64Z

B. 64Y

C. 32Z

D. 64X

A. 64Z

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VERBAL ABILITY

HOMEWORK QUESTIONS

ARRANGE THE FOLLOWING SENTENCES TO FORM A COHERENT PARAGRAPH:

- 1. THIS CAN LEAD TO SEVERE HEALTH PROBLEMS INCLUDING OBESITY AND DIABETES.**
- 2. FAST FOOD CONSUMPTION HAS INCREASED DRAMATICALLY OVER THE PAST FEW DECADES.**
- 3. DESPITE THESE RISKS, THE CONVENIENCE AND LOW COST OF FAST FOOD CONTINUE TO ATTRACT CONSUMERS.**
- 4. MOST FAST FOOD ITEMS ARE HIGH IN CALORIES, FAT, AND SODIUM.**

- A) 2, 4, 1, 3**
- B) 4, 1, 2, 3**
- C) 2, 3, 4, 1**
- D) 1, 4, 2, 3**

Answer: A) 2, 4, 1, 3

After working tirelessly for months, the team finally _____ when they launched their successful product.

A) missed the boat

B) reaped the benefits

C) burned the midnight oil

D) barked up the wrong tree



B) reaped the benefits

Choose the word that is most opposite in meaning to "AMBIGUOUS"

A) Clear

B) Vague

C) Uncertain

D) Complex



A) Clear

"Coffee, one of the world's most popular beverages, contains caffeine, a stimulant that affects the central nervous system. While moderate consumption has been associated with improved alertness and cognitive function, excessive intake may lead to insomnia, nervousness, and increased heart rate. Recent studies suggest that coffee consumption may also have long-term health benefits, including reduced risk of certain diseases."

According to the passage, which statement is FALSE?

- A) Coffee contains a stimulant called caffeine**
- B) Moderate coffee consumption can improve cognitive function**
- C) Coffee consumption always leads to insomnia**
- D) Coffee may provide long-term health benefits**

C) Coffee consumption always leads to insomnia

The professor's lecture was so _____ that many students found it difficult to stay awake.

- A) riveting
- B) provocative
- C) soporific
- D) lucid



C) soporific