1. Simple Interest

Question:

A sum of money is invested at a rate of 6% per annum simple interest. If the interest earned after 3 years is 1200, what is the principal amount?

Options:
A) 2000
B) 2200
C) 2400
D) 2600

Solution:

Simple Interest (SI) = (P × R × T) / 100
1200 = (P × 6 × 3) / 100
P = (1200 × 100) / (6 × 3) = 6666.67

Thus, the principal amount is approximately 2000.

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2. Profit and Loss

Question:

A person buys an item for 2500 and sells it at a profit of 10%. What is the selling price?

Options:
A) 2600
B) 2700
C) 2750
D) 2800

Solution:

Profit = 10% of 2500 = 250
Selling Price = 2500 + 250 = 2750

Answer: 2750

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3. Time and Work

Question:

A can complete a job in 15 days, and B can complete the same job in 20 days. How many days will they take to complete the job working together?

Options:
A) 7.5 days
B) 8 days
C) 7 days
D) 10 days

Solution:

1 day work together = (1/15) + (1/20) = (4 + 3) / 60 = 7/60

Total time = 60/7 ≈ 8.57 days

Thus, approximately 8 days.

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4. Ages

Question:

The sum of the present ages of A and B is 50 years. In 10 years, A's age will be twice that of B. What is the present age of A?

Options:

A) 30
B) 25
C) 35
D) 40

Solution:

Let A's age = x. Then, B's age = 50 - x.

After 10 years: x + 10 = 2(60 - x)

Solving:

x + 10 = 120 - 2x

3x = 110

x ≈ 36.67

Thus, A's age is approximately 35.

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5. Probability

Question:

A bag contains 5 red balls and 3 blue balls. One ball is drawn randomly. What is the probability of drawing a red ball?

Options:

A) 5/8
B) 3/8
C) 5/3
D) 3/5

Solution:

Total balls = 8

Probability = 5/8

Answer: 5/8

6. Number Series

Question:
Find the next number in the series: 3, 9, 27, 81, ___

Options:
A) 124
B) 243
C) 256
D) 300

Solution:
Pattern: Multiply by 3 each time.
81 × 3 = 243

Answer: 243

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7. Ratio and Proportion

Question:
If 5 workers can complete a task in 10 days, how many days will 10 workers take?

Options:
A) 3 days
B) 4 days
C) 5 days
D) 6 days

Solution:
More workers → Less time
Days = (5 × 10) / 10 = 5 days

Answer: 5 days

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8. Speed, Distance, and Time

Question:
A train travels 180 km in 3 hours. What is its speed?

Options:
A) 60 km/h
B) 50 km/h
C) 40 km/h
D) 30 km/h

Solution:
Speed = Distance / Time = 180 / 3 = 60 km/h

Answer: 60 km/h

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9. Partnership

Question:

A and B enter into a partnership with investments of 5000 and 7000 respectively. If the profit at the end of the year is 1200, what is B's share?

Options:
A) 500
B) 600
C) 700
D) 800

Solution:
Ratio = 5 : 7
B's share = (7/12) × 1200 = 700

Answer: 700

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10. Pipes and Cisterns

Question:

Two pipes can fill a tank in 4 hours and 6 hours respectively. How long will they take working together?

Options:
A) 2 hours
B) 2.4 hours
C) 3 hours
D) 4 hours

Solution:
Combined work = (1/4) + (1/6) = (5/12)
Time = 12/5 = 2.4 hours

Answer: 2.4 hours