

Capgemini Aptitude Preparation: Ratios, Proportions, and Averages - Practice Questions & Concepts

This document compiles common examples and problem types from Ratios & Proportions and Averages, frequently seen in aptitude tests like Capgemini Exceller.

Ratios and Proportions

1. Express 50 g to 2 kg as a ratio (convert to same units).
2. Simplify the ratio 6:8.
3. Find the ratio of 90 cm to 1.5 m.
4. What is the ratio of Freddy's money (\$30) to Tony's (\$12)?
5. Find ratio of females to males if there are 25 females out of 45 people.
6. Blue:Red:Total tiles = 60:48:132. Find the ratio.
7. Given $a:b = 2:3$, $b:c = 5:2$, $c:d = 1:4$. Find $a:b:c:d$.
8. Boys:GIRLS = 5:8. After 18 boys enter, new ratio = 2:3. Find original count.
9. Rohan earns 12000/month, Anish 191520/year. Expenses = 9960. Find ratio of savings.
10. Two numbers are in ratio 2:3. If sum = 60, find the numbers.
11. Are 4:5 and 8:10 in proportion?
12. How long to drive 330 miles if 180 miles takes 3 hours?
13. What is the ratio of 50m to 15m?
14. Write two equivalent ratios of 6:4.
15. Write 5 to 6 as a fraction.
16. Write fraction $\frac{7}{11}$ as a ratio in colon notation.
17. Rewrite 100 passengers to 5 trains as a unit rate.

Averages

1. Average of 5, 10, 15 = $(5+10+15)/3 = 10$.
2. Average of 20, 40, 60 = ?
3. Mean of 23, 44, 64, 78, 25, 90 = ?
4. 14-day moving average with prices: 22, 20, 18... (sum = 364). Avg = ?

5. Calculate geometric mean for returns: 90%, 10%, 20%, 30%, -90%.
6. Weighted average: Assignment1 (70%, 20%), Assignment2 (92%, 30%), Exam (75%, 50%).
7. Weighted mean: 40kg @60/kg and 25kg @32/kg.
8. Median of: 45, 24, 72, 12, 86, 63, 94, 50, 75, 100.
9. Mode of: 23, 45, 52, 74, 52, 23, 42, 78, 52, 70...