

PERCENTAGES – FOUNDATION → PLACEMENT LEVEL

1. WHAT IS A PERCENTAGE?

Percentage means 'per hundred'. It is used to compare values, measure change, and is the foundation for many aptitude topics like Profit & Loss, SI/CI, and Data Interpretation.

2. PERCENTAGE CONVERSIONS

- $x\% = x/100$
- $50\% = 1/2$
- $25\% = 1/4$
- $75\% = 3/4$
- $12.5\% = 1/8$

3. IMPORTANT FORMULAS

- $x\% \text{ of } y = (x/100) \times y$
- $\text{Percentage Increase} = (\text{Increase} / \text{Original}) \times 100$
- $\text{Percentage Decrease} = (\text{Decrease} / \text{Original}) \times 100$

4. SOLVED EXAMPLES

- Example 1: Find 20% of 250 → 50
- Example 2: Increase from 200 to 260 → Increase % = 30%
- Example 3: Decrease from 500 to 400 → Decrease % = 20%
- Example 4: Find 12.5% of 320 → 40

5. CONSECUTIVE PERCENTAGE CHANGE

If a value increases by $x\%$ and then decreases by $x\%$, the net change is always a decrease.

Net decrease % = $x^2 / 100$

6. PRACTICE QUESTIONS (HOMEWORK)

- 1. Find 35% of 240
- 2. A number increases from 400 to 460. Find increase %
- 3. A price decreases from ■800 to ■680. Find decrease %
- 4. Find 12.5% of 320
- 5. If a value increases by 20% and then decreases by 20%, find net % change

7. ANSWERS (FOR SELF-CHECK)

- 1. 84
- 2. 15%
- 3. 15%
- 4. 40
- 5. 4% decrease