

Simple and Compound Interest

Chapter 9: Simple and Compound Interest · Topic 1

Key Concept

Simple interest formula: $I = (P \times R \times T) \div 100$, where the interest amount stays the same each year based on the original principal.

Compound interest formula: $A = P(1 + R/100)^T$, where the amount grows because interest is calculated on the growing total each year.

For example, ₹1000 at 10% simple interest for 2 years earns ₹200, while compound interest earns ₹210 (since the second year's interest is on ₹1100).

Compound interest is commonly used in savings accounts, loans, and investments, as it reflects real financial growth over time.

Quick Revision Notes

- Simple interest: $I = (P \times R \times T) \div 100$.
- It stays constant each year, based on original principal.
- Compound interest: $A = P(1 + R/100)^T$.
- It grows because interest compounds on the total.
- ₹1000 at 10% for 2 years: simple=₹200, compound=₹210.
- Compound interest reflects real financial growth.
- It's used in savings accounts and loans.
- Understanding both helps financial decisions.

Practice Questions

- 1 Calculate simple interest on ₹2000 at 5% for 3 years.
- 2 Calculate compound interest on ₹1000 at 10% for 2 years.
- 3 Compare simple and compound interest for the same values.
- 4 Discuss why banks often use compound interest.
- 5 Solve a word problem involving compound interest.
- 6 Research the difference in growth over 5 years.