

Compound Interest (Without Using Formula)

Chapter 2: Compound Interest (Without Using Formula) · Topic 1

Key Concept

Each year, interest is calculated on the current total (principal plus previously earned interest), not just the original principal.

For example, ₹1000 at 10% for year one earns ₹100, making the total ₹1100; year two earns 10% of ₹1100 = ₹110, making the total ₹1210.

This step-by-step method helps us understand how compound interest grows faster than simple interest over time.

Understanding this manual method builds a strong foundation before learning the compound interest formula for quicker calculations.

Quick Revision Notes

- Compound interest uses the current total each year.
- Not just the original principal.
- ₹1000 at 10%: year 1 = ₹1100.
- Year 2 = ₹1100 + 10% of ₹1100 = ₹1210.
- This step-by-step method shows compound growth.
- It grows faster than simple interest.
- This builds foundation for the formula method.
- Manual calculation aids conceptual understanding.

Practice Questions

- 1 Calculate compound interest on ₹2000 at 5% for 2 years, year by year.
- 2 Discuss why compound interest grows faster than simple interest.
- 3 Calculate the amount after 3 years for ₹1500 at 10%.
- 4 Explain the year-by-year method in your own words.
- 5 Compare simple and compound interest for the same values.
- 6 Solve a two-year compound interest problem manually.