# Compound Interest Worksheet

Practice questions for using the compound interest formula and checking answers with CompoundInterestTools.com.

## Formula reminder

**A = P(1 + r/n)^(n x t)**

A = final amount, P = starting amount, r = annual rate as a decimal, n = compounding periods per year, t = years

## Questions

| No. | Question | Working / Answer |
|---|---|---|
| 1 | Calculate the final amount for GBP 1,000 at 5% for 5 years, compounded annually. | |
| 2 | Calculate the final amount for GBP 5,000 at 4% for 10 years, compounded monthly. | |
| 3 | Compare simple and compound interest for GBP 10,000 at 5% for 10 years. | |
| 4 | Calculate GBP 2,500 plus GBP 100 monthly deposits at 6% for 15 years, compounded monthly. | |
| 5 | Work backwards: how much would you need today to reach GBP 25,000 in 10 years at 5%, compounded monthly? | |
| 6 | Explain why daily compounding gives a slightly different answer from monthly compounding. | |

# Answer guide

Rounded answers. Use the calculator for exact values and downloadable tables.

| No. | Answer |
|---|---|
| 1 | GBP 1,276.28, using annual compounding. |
| 2 | Approximately GBP 7,454.16, using monthly compounding. |
| 3 | Simple interest gives GBP 15,000. Compound monthly gives approximately GBP 16,470.09. |
| 4 | Approximately GBP 35,217.11 if deposits are made at the end of each month. |
| 5 | Approximately GBP 15,179.03 needed today. |
| 6 | Daily compounding applies interest more often, so interest is added to the balance slightly sooner than monthly |

Educational use only. These questions are examples and are not financial advice.