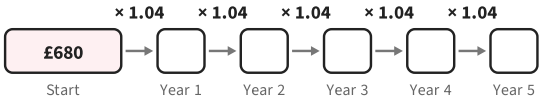
Compound Interest

1

£680 is invested. It grows by 4% each year. Work out its value after 5 years, to the nearest penny.



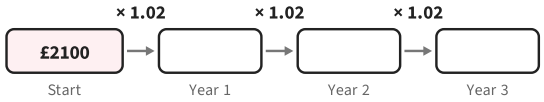
Multiplier: 100% + 4% = 104% = 1.04

Value: £680 × 1.04 (5)

Answer _____

2

£2100 is saved in an account. It grows by 2% each year. Work out its value after 3 years, to the nearest penny.



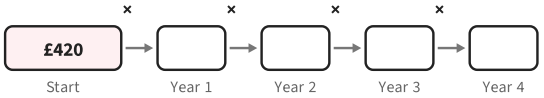
Multiplier: 100% + 2% = 102% = 1.02

Value: _____ × _____

Answer _____

3

£420 is invested. It grows by 6% each year. Work out its value after 4 years, to the nearest penny.



Multiplier: 100% + 6% = _____ = _____

Value: _____ × _____

Answer _____

4

£9200 is put in a savings account. It grows by 3.5% each year. Work out its value after 2 years, to the nearest penny.

Multiplier _____

Value _____

Answer _____

5

A motorbike is worth £7200. It falls by 15% each year. Work out its value after 3 years, to the nearest penny.

Multiplier _____

Value _____

Answer _____

6

Sam works out £800 after 3 years at 6% compound interest as $£800 \times 1.6^3 = £3276.80$.
Explain his mistake, then find the right value to the nearest penny.

_____

_____

_____

Answer _____

7

£1500 is invested for 4 years at 3% a year. How much more is it worth with compound interest than with simple interest?

_____

_____

_____

Answer _____

8

Leo invests £2400 at 1.8% compound interest per year. How much interest has he earned after 6 years? Give your answer to the nearest penny.

_____

_____

_____

Answer _____

Compound Interest *further practice*

9

£5600 is invested at 2.25% compound interest per year. Work out its value after 3 years, to the nearest penny.

Answer _____

10

A laptop costs £1250. It loses 22% of its value each year. What is it worth after 3 years?

Answer _____

11

Write the multiplier for each change.
a) an increase of 7%
b) a decrease of 7%
c) an increase of 0.5%
d) a decrease of 30%

a) _____

b) _____

c) _____

d) _____

12

A town has a population of 18 400. It grows by 1.5% each year. Work out the population after 4 years, to the nearest whole number.

Answer _____

13

Account A pays 4% compound interest per year. Account B pays 4.5% simple interest per year. Mia puts £2000 in one account for 3 years. Which account gives her more, and by how much?

Answer _____

14

£3200 is invested at 5% compound interest per year. After how many whole years will it first be worth more than £4000?

Answer _____

15

A painting is worth £7500. Its value rises by 6% a year for 2 years, then falls by 10% a year for the next 3 years. Work out its value at the end.

Answer _____

16

Amir says, "Losing 10% a year for 2 years is the same as losing 20%." Is Amir right? Explain, using £100.

Answer _____