

**AQA, OCR, Edexcel**

**GCSE**

# GCSE Maths

Compound, Simple Interest and  
Depreciation Answers

Name:

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Total Marks:

## Compound and simple interest and depreciation

1. You deposit £400 in to a bank account paying 5% simple interest per year. How much interest would you have earned after 3 years?

- $400 \times 0.05 = 20$
- $20 \times 3 = 60$
- £60

(3 Marks)

2. You take out a loan of £800 and the bank charges you 15% compound interest per year. If you don't pay off any of the loan in 4 years, how much would you owe the bank?

- $800 \times \left(1 + \frac{15}{100}\right)^4$
- = £1399.205 (*must round answer to nearest penny*)
- = £ 1399.21

(3 Marks)

3. You invest £4000 in a fund which earns 11% compound return per year. How much would the fund be worth after 10 years, given that you removed half of the balance after 5 years?

- $4000 \times \left(1 + \frac{11}{100}\right)^5 = 6740.23262$
- $\frac{6740.23262}{2} = 3370.11631$
- $3370.11631 \times \left(1 + \frac{11}{100}\right)^5 = 5678.841972$
- = £5678.84 *left in the fund after 10 years.*

(4 Marks)

4. £900 is deposited in a bank paying 0.5% compound interest per annum. What is the balance after 3 years?

- $900 \times \left(1 + \frac{0.5}{100}\right)^3$
- 913.5676125
- = £913.57

(3 Marks)

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5. A car is bought for £1500 but depreciates in value at the rate of 8% per year.

a. Calculate how much the car is worth after 2 years.

- $1500 \times \left(1 - \frac{8}{100}\right)^2 = £1269.60$

b. What is the total depreciation of the car after two years, expressed as a percentage?

- $£1500 - £1269.60 = £230.40$

- $\left(\frac{230.40}{1500}\right) \times 100 = 15.36\%$  (Equation is  $\frac{\text{difference}}{\text{original}} \times 100$ )

(4 Marks)