



ACHIEVE ACADEMY

GCSE Maths — Higher Tier

Fractions, Decimals & Percentages · Practice Booklet

NAME: _____

CLASS: _____

DATE: _____

☐ Developing

☒ Secure

☐ Greater Depth

Answer every question in the working space provided. Method marks are available for correct working even if the final answer is wrong. Check the time allowed with your tutor before you start.

Fractions, Decimals & Percentages

Total marks available: 117

Fractions, Decimals & Percentages

Q1

[3 marks]

After a 8% increase, a price becomes £174.96. Calculate the original price.

Q2

[3 marks]

After a 8% increase, a price becomes £146.88. Calculate the original price.

Q3

[4 marks]

Calculate $3\frac{1}{2} - 3\frac{1}{3}$. Give your answer as a fraction in its simplest form.

Q4

[4 marks]

Calculate $5\frac{3}{5} - 1\frac{1}{3}$. Give your answer as a mixed number in its simplest form.

Q5

[3 marks]

After a 15% increase, a price becomes £63.25. Calculate the original price.

Q6

[4 marks]

Calculate $5\frac{2}{5} + 3\frac{3}{7}$. Give your answer as a mixed number in its simplest form.

Q7

[3 marks]

After a 12% increase, a price becomes £71.68. Calculate the original price.

Q8

[4 marks]

Calculate $2\frac{1}{5} - 1\frac{1}{4}$. Give your answer as a fraction in its simplest form.

Q9

[3 marks]

After a 20% decrease, a price becomes £305.60. Calculate the original price.

Q10

[4 marks]

Calculate $1\frac{4}{6} + 3\frac{6}{7}$. Give your answer as a mixed number in its simplest form.

Q11

[4 marks]

£5201 is invested at 8% compound interest per year. Calculate its value after 4 years, to the nearest penny.

Q12

[4 marks]

£1832 is invested at 3% compound interest per year. Calculate its value after 3 years, to the nearest penny.

Q13

[4 marks]

A car worth £2540 depreciates by 8% per year. Calculate its value after 3 years, to the nearest penny.

Q14

[3 marks]

Write the recurring decimal $0.757575\dots$ as a fraction in its simplest form.

Q15

[4 marks]

£7214 is invested at 6% compound interest per year. Calculate its value after 2 years, to the nearest penny.

Q16

[4 marks]

A car worth £3489 depreciates by 4% per year. Calculate its value after 2 years, to the nearest penny.

Q17

[3 marks]

Write the recurring decimal $0.444\dots$ as a fraction in its simplest form.

Q18

[4 marks]

£4989 is invested at 2% compound interest per year. Calculate its value after 3 years, to the nearest penny.

Q19

[4 marks]

£3768 is invested at 6% compound interest per year. Calculate its value after 2 years, to the nearest penny.

Q20

[3 marks]

Write the recurring decimal $0.333\dots$ as a fraction in its simplest form.

Q21

[5 marks]

£1228 is first increased by 20%, then the new amount is increased by 5%. Calculate the final amount, and the overall percentage change from the original amount.

Q22

[4 marks]

Calculate $1 \frac{1}{4} \div 2 \frac{4}{6}$. Give your answer as a mixed number.

Q23

[5 marks]

£1951 is first decreased by 5%, then the new amount is decreased by 15%. Calculate the final amount, and the overall percentage change from the original amount.

Q24

[4 marks]

Calculate $2\frac{3}{6} \times 4\frac{2}{4}$. Give your answer as a mixed number.

Q25

[5 marks]

£1540 is first increased by 15%, then the new amount is decreased by 20%. Calculate the final amount, and the overall percentage change from the original amount.

Q26

[5 marks]

£596 is first increased by 25%, then the new amount is increased by 25%. Calculate the final amount, and the overall percentage change from the original amount.

Q27

[4 marks]

Calculate $1 \frac{1}{4} \div 2 \frac{1}{2}$. Give your answer as a mixed number.

Q28

[4 marks]

Calculate $1\frac{4}{6} \div 3\frac{1}{2}$. Give your answer as a mixed number.

Q29

[4 marks]

Calculate $4\frac{3}{5} \times 4\frac{3}{4}$. Give your answer as a mixed number.

Q30

[5 marks]

£1486 is first decreased by 10%, then the new amount is decreased by 5%. Calculate the final amount, and the overall percentage change from the original amount.