FOUNDATION & HIGHER

SAME AT BOTH TIERS

Name ..... Class .....

R9: Percentages

Solve problems involving percentage change, reverse percentages and interest

20 marks · 25 minutes · Calculator allowed

1) A house's value rose by 8% and then fell by 5%. It is now worth £256 500. What was it worth at the start?

£ .....

[Question 1: 3 marks]

2) Two shops sell the same £60 item. Shop A gives 20% off each item. Shop B sells a second item at half price. Which is cheaper for 2 items, and by how much?

.....

[Question 2: 3 marks]

3) £3000 is invested for 3 years at 4% per year. How much more is earned with compound interest than with simple interest?

£.....

[Question 3: 3 marks]

4) Sam's pay rises by 3% and then by a further 2.5%. Find the overall percentage increase.

..... %

[Question 4: 3 marks]

5) A price of £96 includes VAT at 20%. What is the price before VAT?

£ .....

[Question 5: 2 marks]

6) Jo's rent rose from £650 to £715. Her pay rose by 6%. Did her rent rise by a greater percentage than her pay? Show your working.

.....

[Question 6: 3 marks]

7) A class of 30 is 40% girls. 5 more girls join. What percentage of the class are now girls?

..... %

[Question 7: 3 marks]

End of paper – 20 marks in total

Answers and brief mark scheme

Q	Answer	Method / notes
1	£250 000	$\times 1.08 \times 0.95 = \times 1.026$ (P1); 256 500 ÷ 1.026 (P1); A1.
2	B by £6	A: £96 (P1); B: £90 (P1); A1.
3	£14.59	Simple £360 (P1); compound £374.59 (P1); A1.
4	5.575%	1.03×1.025 (P1, P1); A1.
5	£80	96 ÷ 1.2 (P1); A1.
6	Yes	Rent up 10% (P1, P1); 10% > 6% (C1).
7	48.6%	12 girls becomes 17 (P1); $\frac{17}{35}$ (P1); A1.