GCSE HIGHER · REVISION MAT 1

Percentages and percentage change

1 Increase £60 by 15%.

2 A price falls from £80 to £68.

Find the percentage decrease.

3 Show that a 10% increase followed by a 10% decrease does not give the original amount.

4 Shop A: a jacket costs £75 with 20% off.

Shop B: the same jacket costs £84 with $\frac{1}{4}$ off.

Which shop is cheaper?

5 A TV costs £540 after a 10% reduction.

Show that the original price was £600.

6 A bill of £86.40 includes VAT at 20%.

How much of the bill is VAT?

7 Explain why a 25% increase followed by a 20% decrease gives the original amount.

8 A price is increased by x% and then decreased by x%.

Overall it falls by 4%.

Find x.

ANSWERS · REVISION MAT 1

Percentages and percentage change

1 60×1.15

£69

2 $\frac{12}{80} \times 100$

15%

3 $1.1 \times 0.9 = 0.99$

A 1% decrease overall

4 A: $75 \times 0.8 = 60$

B: $84 \times 0.75 = 63$

Shop A

5 $540 \div 0.9$

= 600

6 $86.40 \div 1.2 = 72$

£14.40

7 1.25×0.8

= 1, so no overall change

8 $(1 + \frac{x}{100})(1 - \frac{x}{100}) = 0.96$

$\frac{x^2}{10\,000} = 0.04$

$x = 20$

Mr&Mrs MATHS