GCSE HIGHER · REVISION MAT 5

# Percentages and percentage change

**1** Find 115% of 60.

**2** A test mark is 42 out of 60.

Write it as a percentage.

**3** Show that decreasing by 25% is the same as multiplying by 0.75.

**4** A phone costs £480.

It is reduced by 15%, then by a further 5% of the reduced price.

Find the final price.

**5** After a 40% increase, an item costs £56.

Show that it cost £40 before.

**6** An item costs £25 to make and sells for £32.

Find the percentage profit.

**7** Is a 10% increase followed by a 20% increase the same as a 30% increase?

Explain.

**8** A value falls by 20% and then rises by $y$%.

Overall it is 8% higher than at the start.

Find $y$.

Mr&Mrs MATHS

ANSWERS · REVISION MAT 5

# Percentages and percentage change

**1** $1.15 \times 60$

**69**

**2** $\frac{42}{60} \times 100$

**70%**

**3** **100% – 25% = 75% = 0.75**

**4** $480 \times 0.85 = 408$

$408 \times 0.95$

**£387.60**

**5** $56 \div 1.4$

**= 40**

**6** $\frac{7}{25} \times 100$

**28%**

**7** $1.1 \times 1.2 = 1.32$

**No: it is a 32% increase.**

**8** $0.8\left(1 + \frac{y}{100}\right) = 1.08$

$1 + \frac{y}{100} = 1.35$

**$y = 35$**

Mr&Mrs MATHS