GCSE HIGHER · REVISION MAT 4

Direct and inverse proportion

1 6 apples cost 90p.

Find the cost of 10 apples.

2 At 50 km/h a journey takes 3 hours.

How long at 75 km/h?

3 Explain why doubling the number of workers halves the time taken.

4 250 ml of shampoo costs £3.20.

400 ml costs £4.80.

Which is better value?

5 £1 = $1.25

Show that $90 = £72.

6 6 painters take 5 hours to paint a hall.

How many painters are needed to do it in 2 hours?

7 A 12 cm by 8 cm photo is enlarged so the longer side is 30 cm.

Show that the shorter side is 20 cm.

8 3 machines fill 900 bottles in 2 hours.

How long do 5 machines take to fill 2250 bottles?

Mr&Mrs MATHS

ANSWERS · REVISION MAT 4

Direct and inverse proportion

1 1 apple 15p

£1.50

2 150 km

2 hours

3 **The total work is fixed, so each does half as much.**

4 £1.28 and £1.20 per 100 ml

400 ml

5 90 ÷ 1.25

= 72

6 30 painter-hours

15 painters

7 Scale factor 2.5

8 × 2.5 = 20 cm

8 1 machine: 150 per hour

5 machines: 750 per hour

3 hours

Mr&Mrs MATHS