GCSE HIGHER · REVISION MAT 2

Direct and inverse proportion

1 3 kg costs £7.50.

Find the cost of 5 kg.

2 A journey at 60 mph takes 2 hours.

How long at 40 mph?

3 Explain why the time to paint a fence is inversely proportional to the number of painters.

4 500 g costs £1.85.

750 g costs £2.70.

Which is better value?

5 £1 = €1.16

Show that €290 = £250.

6 5 people take 12 days to harvest a crop.

How many more people are needed to finish in 4 days?

7 y is inversely proportional to x.

$y = 8$ when $x = 3$.

Show that $y = 6$ when $x = 4$.

8 3 tractors plough a field in 10 hours.

After 4 hours, one breaks down.

How long does the whole job take?

Mr&Mrs MATHS

ANSWERS · REVISION MAT 2

Direct and inverse proportion

1 1 kg £2.50

£12.50

2 120 miles

3 hours

3 **Doubling the painters halves the time.**

4 37p and 36p per 100 g

750 g

5 290 ÷ 1.16

= 250

6 60 person-days

60 ÷ 4 = 15

10 more

7 $xy = 24$

24 ÷ 4 = 6

8 30 tractor-hours; 12 done

18 ÷ 2 = 9

13 hours

Mr&Mrs MATHS