GCSE HIGHER · REVISION MAT 1

Direct and inverse proportion

1 5 pens cost £3.50.

Find the cost of 8 pens.

2 4 workers take 6 days to do a job.

How long would 3 workers take?

3 Is the cost of petrol directly or inversely proportional to the number of litres? Explain.

4 Pack A: 6 rolls for £2.70.

Pack B: 10 rolls for £4.40.

Which pack is better value?

5 y is directly proportional to x.

$y = 12$ when $x = 3$.

Show that $y = 20$ when $x = 5$.

6 A recipe for 4 people uses 300 g of flour and 2 eggs.

Ella has 750 g of flour and 4 eggs.

How many people can she make it for?

7 6 machines make 1200 items in 5 hours.

Show that 4 machines take 7.5 hours.

8 8 taps fill a tank in 45 minutes.

After 15 minutes, 2 taps stop working.

How long does it take to fill the tank in total?

Mr&Mrs MATHS

ANSWERS · REVISION MAT 1

Direct and inverse proportion

1 1 pen 70p

£5.60

2 24 worker-days

8 days

3 **Directly: twice the litres costs twice as much.**

4 A: 45p each, B: 44p each

Pack B

5 $y = 4x$

4 × 5 = 20

6 Flour: 10 people

Eggs: 8 people

8 people

7 30 machine-hours

30 ÷ 4 = 7.5 hours

8 360 tap-minutes; 120 used

240 ÷ 6 = 40 minutes

55 minutes

Mr&Mrs MATHS