GCSE HIGHER · REVISION MAT 3

Speed, density and pressure

1 How long does it take to travel 120 km at 40 km/h?

2 A force of 80 N acts on 4 m^2.

Find the pressure.

3 Ben says 2.4 hours is 2 hours 40 minutes.

Explain his mistake.

4 A plane flies 1200 km in 1 hour 36 minutes.

Find its average speed.

5 A cube of side 3 cm has a mass of 216 g.

Show that its density is 8 g/cm^3.

6 A force gives a pressure of 50 N/m^2 on 3 m^2.

The same force acts on 2 m^2.

Find the new pressure.

7 Show that a car at 30 m/s travels 108 km in one hour.

8 Two cars are 300 km apart.

They drive towards each other at 70 km/h and 80 km/h.

How far does the slower car travel before they meet?

Mr&Mrs MATHS

ANSWERS · REVISION MAT 3

Speed, density and pressure

1 **3 hours**

2 **20 N/m²**

3 0.4 × 60 = 24

2 hours 24 minutes

4 1 h 36 min = 1.6 h

750 km/h

5 Volume 27 cm³

216 ÷ 27 = 8

6 Force = 150 N

75 N/m²

7 30 × 3600 = 108 000 m

108 km

8 Closing speed 150 km/h

Time 2 hours

140 km

Mr&Mrs MATHS