GCSE FOUNDATION · REVISION MAT 3

Compound units

1 A car travels 96 km in 1.5 hours.

Work out its average speed.

2 A piece of wood has a mass of 780 g and a volume of 300 cm^3.

Work out its density.

3 A small pack has 2 litres of juice and costs £1.38.

A large pack has 3 litres of juice and costs £2.10.

Show that the smaller pack is better value.

4 Gwen travels for 15 minutes at 48 km/h.

Gwen says the distance travelled is 720 km.

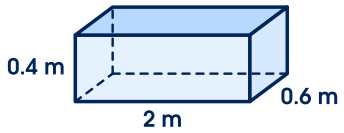
Explain the mistake Gwen has made.

5 A train travels 162 km at an average speed of 72 km/h.

It leaves at 13:50.

What time does it arrive?

6 A box is a cuboid. Its weight is 480 N.



Work out the greatest pressure the box can exert on the floor.
(pressure = force ÷ area)

Mr&Mrs MATHS

ANSWERS · REVISION MAT 3

Compound units

1 96 ÷ 1.5 = **64 km/h**

2 780 ÷ 300 = **2.6 g/cm^3**

3 Small: £1.38 ÷ 2 = 69p per unit

Large: £2.10 ÷ 3 = 70p per unit

The **smaller** pack costs less per unit ✓

4 The speed is per **hour**, so the time must be in hours.

15 min = 0.25 h

48 × 0.25 = **12 km**

5 Time = 162 ÷ 72 = 2.25 hours = 2 h 15 min

Arrives at **16:05**

6 Smallest face area = 0.24 m^2

Greatest pressure = 480 ÷ 0.24 = **2000 N/m^2**