GCSE FOUNDATION · REVISION MAT 1

Compound units

1 A car travels 150 km in 2.5 hours.

Work out its average speed.

2 A metal block has a mass of 540 g and a volume of 200 cm^3.

Work out its density.

3 A small pack has 500 g of cereal and costs £2.40.

A large pack has 750 g of cereal and costs £3.45.

Show that the larger pack is better value.

4 Ella travels for 30 minutes at 60 km/h.

Ella says the distance travelled is 1,800 km.

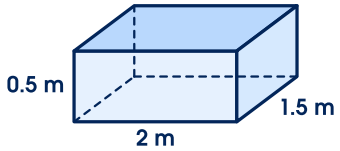
Explain the mistake Ella has made.

5 A train travels 210 km at an average speed of 84 km/h.

It leaves at 10:45.

What time does it arrive?

6 A box is a cuboid. Its weight is 900 N.



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

ANSWERS · REVISION MAT 1

Compound units

1 150 ÷ 2.5 = **60 km/h**

2 540 ÷ 200 = **2.7 g/cm^3**

3 Small: £2.40 ÷ 500 = 0.48p per unit

Large: £3.45 ÷ 750 = 0.46p per unit

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

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

30 min = 0.5 h

60 × 0.5 = **30 km**

5 Time = 210 ÷ 84 = 2.5 hours = 2 h 30 min

Arrives at **13:15**

6 Smallest face area = 0.75 m^2

Greatest pressure = 900 ÷ 0.75 = **1200 N/m^2**