Speed, density or pressure: flowchart

Planner weeks 11, 18 and 22 · Which measure? The units tell you

A compound measure

Which measure is it?
look at the units: mph, g/cm³, N/m²

mph · g/cm³ · N/m²

SPEED

Emily drives 186 miles in 3 hours. Find her average speed.

1. Triangle: D on top, S and T below
2. Cover S: speed = distance ÷ time
3. 186 ÷ 3 = **62 mph**

✓ distance = speed × time

DENSITY

A stone has a mass of 27 g and a volume of 10 cm³.

1. Triangle: M on top, D and V below
2. Cover D: density = mass ÷ volume
3. 27 ÷ 10 = **2.7 g/cm³**

✓ mass = density × volume

PRESSURE

A force of 600 N acts on an area of 2 m².

1. Triangle: F on top, P and A below
2. Cover P: pressure = force ÷ area
3. 600 ÷ 2 = **300 N/m²**

✓ force = pressure × area

Do the units need changing?
minutes, kg, cm and m

No → **Write the units**
mph, g/cm³, N/m²

Yes → **Change them before you start**
45 minutes = 45 ÷ 60 = **0.75 hours** · 2 kg = **2000 g** · 180 km/h = 50 m/s

The big question

Which measure is it, and which **two** do I know? **Cover** the missing one on the triangle.

Top ÷ bottom · bottom × bottom

Watch out

- 2.6 hours is 2 hours 36 minutes, not 2 hours 60.
- Change kg to g if density is in g/cm³.
- Find the volume or area first if you need it.
- Round only at the end.