105. Using Density, Pressure, and Speed-Distance-Time Formulas

Practice Questions

1. A car travels 180 km in 3 hours. Find its speed.
2. A cyclist covers 120 km in 4 hours. What is their speed?
3. A train moves at 80 km/h for 3.5 hours. How far does it travel?
4. A runner completes a 400 m race in 50 seconds. Find their speed in m/s.
5. A swimmer moves at 1.8 m/s. How far do they swim in 8 minutes?
6. A plane flies 1500 km in 2.5 hours. What is its average speed?
7. A metal block has a mass of 400 g and a volume of 200 cm^3. Find its density.
8. A gas cylinder has a pressure of 800 kPa and acts on an area of 2 m^2. Find the force exerted.
9. A block of wood has a density of 0.8 g/cm^3 and a volume of 500 cm^3. What is its mass?
10. A force of 5000 N is exerted over an area of 25 m^2. Find the pressure applied.

Scenario Questions

1. A car journey from Manchester to Birmingham is 160 km. If the journey takes 2.5 hours, calculate the average speed.
2. A bus moves at an average speed of 45 km/h. How long will it take to travel 180 km?
3. A runner completes a 10 km race in 50 minutes. Find their speed in km/h.
4. A company produces 800 units in 4 hours. What is the production rate per hour?
5. A ferry sails at 35 km/h for 6 hours. How far does it travel?
6. A metal block has a density of 7.5 g/cm^3 and a volume of 400 cm^3. Find its mass.
7. A diver descends into the sea at a rate of 2.5 m/s. How deep will they be after 1 minute?
8. A train moving at 90 km/h travels for 4.5 hours. How far does it go?
9. A pressure of 600 kPa is applied over an area of 2.5 m^2. Find the force exerted.
10. A water tank has a volume of 2000 cm^3 and a density of 1.2 g/cm^3. What is its mass?

Extra Content for Foundation GCSE

105. Using Density, Pressure, and Speed-Distance-Time Formulas

Practice Questions

1. 60 km/h
2. 30 km/h
3. 280 km
4. 8 m/s
5. 864 m
6. 600 km/h
7. 2 g/cm³
8. 1600 kN
9. 400 g
10. 200 Pa

Scenario Questions

1. 64 km/h
2. 4 hours
3. 12 km/h
4. 200 units/hour
5. 210 km
6. 3000 g
7. 150 m
8. 405 km
9. 1500 kN
10. 2400 g