Multiple choice questions - Speed, density and compound units

Year: Year 8 · 10

Question 1 A car travels 100 km in 2 hours. Its speed is

- ◯ **A.** 200 km/h
- ◯ **B.** 50 km/h
- ◯ **C.** 20 km/h
- ◯ **D.** 102 km/h

Question 2 How far is travelled at 30 km/h for 4 hours?

- ◯ **A.** 7.5 km
- ◯ **B.** 34 km
- ◯ **C.** 120 km
- ◯ **D.** 12 km

Question 3 1 hour 20 minutes as a decimal is

- ◯ **A.** 1.2 h
- ◯ **B.** 1.33 h (2 d.p.)
- ◯ **C.** 1.8 h
- ◯ **D.** 1.20 min

Question 4 Density of 90 g in 10 cm^3?

- ◯ **A.** 900 g/cm^3
- ◯ **B.** 9 g/cm^3
- ◯ **C.** 0.11 g/cm^3
- ◯ **D.** 80 g/cm^3

Question 5 36 km/h in m/s is

- ◯ **A.** 10
- ◯ **B.** 36
- ◯ **C.** 129.6
- ◯ **D.** 3.6

Question 6 A journey of 90 km takes 1.5 hours. Average speed?

- ◯ **A.** 135 km/h
- ◯ **B.** 60 km/h
- ◯ **C.** 90 km/h

- ◯ **D.** 1.5 km/h

Question 7 Mass of 25 cm^3 of a substance with density 4 g/cm^3?

- ◯ **A.** 100 g
- ◯ **B.** 6.25 g
- ◯ **C.** 29 g
- ◯ **D.** 21 g

Question 8 A time of 3.75 hours is

- ◯ **A.** 3 h 75 min
- ◯ **B.** 3 h 45 min
- ◯ **C.** 3 h 7.5 min
- ◯ **D.** 3 h 15 min

Question 9 12 pens cost £9. Cost per pen?

- ◯ **A.** 75p
- ◯ **B.** £1.33
- ◯ **C.** 12p
- ◯ **D.** £108

Question 10 A cyclist goes 5 km at 10 km/h then 5 km at 20 km/h. Average speed is

- ◯ **A.** 15 km/h
- ◯ **B.** 13.3 km/h (1 d.p.)
- ◯ **C.** 12.5 km/h
- ◯ **D.** 30 km/h

Answer grid - Speed, density and compound units

Year: Year 8

Question	Answer	Explanation
1	**B**	$100 \div 2$.
2	**C**	30×4.
3	**B**	$20 \div 60 = 0.333\ldots$.
4	**B**	$90 \div 10$.
5	**A**	$36 \div 3.6$.
6	**B**	$90 \div 1.5$.
7	**A**	25×4.
8	**B**	$0.75 \times 60 = 45$.
9	**A**	$900 \div 12 = 75$p.
10	**B**	Times 0.5 h and 0.25 h. $10 \div 0.75$.