Answers and mark guide

Q	Answer	Working	Marks
1	**30 km/h**	150 ÷ 5	2
2	**210 km**	70 × 3	2
3	**5 hours**	150 ÷ 30	2
4	**8 m/s**	80 ÷ 10	2
5	**13.3333 mph**	90 minutes = 1.5 hours	3
6	**3.5 g/cm³**	density = mass ÷ volume	3
7	**80 g**	mass = density × volume	3
8	**120 cm³**	volume = mass ÷ density	3
9	**250 km**	160 + 90	3
10	**26.7 km**	40 × 40/60	3
11	**33.3333 km/h**	Total distance ÷ total time = 100 ÷ 3	4
12	**25 m/s**	90 × 1000 ÷ 3600	4
13	**43.2 km/h**	12 × 3600 ÷ 1000	4
14	**2.70 kg**	mass = 19.3 × 140 = 2702 g	4
15	**2300 g**	2500 cm³ × 0.92	4
16	**68.6 km/h (3 s.f.)**	Times: 1.5 h + 2 h = 3.5 h; 240 ÷ 3.5 = 68.57…	5
17	**7.8 g/cm³**	Volume = 200 cm³; mass = 1560 g; 1560 ÷ 200	5
18	**4.67 g/cm³ (3 s.f.)**	Total mass = 800 + 600 = 1400 g; total volume 300 cm³	5
19	**2.04 km**	340 × 6 = 2040 m	4
20	**105 minutes**	18 ÷ 24 h = 45 min; rest 15 min; 12 ÷ 16 h = 45 min; total 105 min	5

My score: _____ / 70 Questions 1–15 = 46 marks (Foundation focus)