Answers and mark guide

Q	Answer	Working	Marks
1	**256 cm²**	Area scale factor = $4^2 = 16$	3
2	**810 cm³**	Volume scale factor = $3^3 = 27$	3
3	**1 : 25**	5^2	3
4	**1 : 64**	4^3	3
5	**16**	4^2	2
6	**2**	$\sqrt{(104/26)}$	4
7	**4**	$\sqrt[3]{(64)}$	4
8	**972 ml**	$3^3 \times 36$	4
9	**30 cm**	scale factor 5	4
10	**1 : 4**	Simplify the length ratio, then square.	3
11	**43 cm³**	$\div 5^3$	5
12	**17 m²**	÷ 900	5
13	**180 cm²**	$\times (3/2)^2 = 2.25$	5
14	**200 ml**	$(2/3)^3 = 8/27$; $675 \times 8/27$	5
15	**2 : 3; 8 : 27**	Square root, then cube	5
16	**250 kg**	Mass scales with volume: $5^3 = 125$	5
17	**250 kg**	Mass scales with volume: $5^3 = 125$	5
18	**250 kg**	Mass scales with volume: $5^3 = 125$	5
19	**250 kg**	Mass scales with volume: $5^3 = 125$	5
20	**250 kg**	Mass scales with volume: $5^3 = 125$	5

My score: _____ / 83 Questions 1–15 = 58 marks (Foundation focus)