Answers and mark guide

Q	Answer	Working	Marks
1	**1440 cm³**	4/3 × π × 7³	3
2	**1020 cm²**	4π9²	3
3	**2140 cm³**	4/3 × π × 8³	3
4	**113 cm²**	4π3²	3
5	**113 cm³**	4/3 × π × 3³	3
6	**168 cm³**	1/3 × π × 4² × 10	4
7	**972π cm³**	4/3 × π × 9³	3
8	**262 cm³**	Half of a sphere	4
9	**339 cm²**	πrl	4
10	**392/3 π cm³**	1/3πr²h	4
11	**11.3 cm**	Pythagoras	4
12	**560 cm²**	πr² + πrl	5
13	**3 cm**	r³ = 3V ÷ 4π	5
14	**84.8 cm²**	2πr² + πr²	5
15	**8 cm**	1/3 r² h = volume/π	5
16	**240π cm³**	πr²h − 1/3 πr²h	5
17	**1130 cm³**	Cylinder + hemisphere	5
18	**64**	Volume ratio = (r/1)³	5
19	**8**	2³ = 8	4
20	**Shown**	Cone: 1/3πr²(2r) = 2πr³/3; Sphere: 4πr³/3	5

My score: _____ / 82 Questions 1–15 = 58 marks (Foundation focus)