Answers and mark guide

Q	Answer	Working	Marks
1	**18π cm**	C = πd	2
2	**121π cm²**	A = πr²	2
3	**31.4 cm**	2×π×5	2
4	**380 cm²**	π×11²	2
5	**314 cm²**	Radius = 10; A = π×10²	3
6	**36.0 cm**	Arc = π×14÷2; add the diameter 14	3
7	**8π cm²**	½ × π × 4²	3
8	**25π cm²**	¼ × π × 10²	3
9	**6 cm**	2πr = 12π	3
10	**45.2 m**	Distance = π × 120 × 12 cm, ÷ 100 for metres	4
11	**20π m²**	π(6² − 4²)	4
12	**10π cm**	r² = 25, r = 5	4
13	**31**	Circumference = π×80 = 251.33 cm. 7900 ÷ 251.33 = 31.43, so 31 complete turns.	4
14	**4.62 cm**	r = 29 ÷ 2π	4
15	**7.38 cm**	r² = 171 ÷ π	4
16	**109 m²**	Rectangle 70 + semicircle ½π(5)²	5
17	**29.4 m**	Two sides 14 = 14+6+½π×6	5
18	**13.7 cm²**	8² − π×4²	5
19	**33.5 cm²**	60/360 × π × 8²	5
20	**388 m**	2×100 + π×60	5

My score: _____ / 72 Questions 1–15 = 47 marks (Foundation focus)