Answers and mark guide

Q	Answer	Working	Marks
1	**7√2**	98 = 49 × 2, and √49 = 7.	2
2	**2√6**	24 = 4 × 6, and √4 = 2.	2
3	**3√3**	27 = 9 × 3, and √9 = 3.	2
4	**2√5**	20 = 4 × 5, and √4 = 2.	2
5	**5√5**	125 = 25 × 5, and √25 = 5.	2
6	**35**	= √1225 = 35	3
7	**96**	$4^2 \times 6$	3
8	**6√6**	4√6 + 2√6	3
9	**18**	3×3×2	3
10	**23**	Difference of two squares.	3
11	**√7/7**	Multiply top and bottom by √7.	4
12	**4√5**	20√5/5	4
13	**6 + 4√2**	2^2 + 2×2×√2 + 2	4
14	**30 + 5√6**	36 − 4√6 + 9√6 − 6	4
15	**10 + 5√10**	10 + 5√10	4
16	**6 − √2**	Multiply by (6 − √2): denominator = 36 − 2 = 34	5
17	**169 + 24√10**	16×10 + 2×4√10×3 + 9	5
18	**x = ±2√5**	x = ±√20 = ±2√5	4
19	**2√13 cm**	√(16 + 36) = √52	5
20	**2√10/9**	Common denominator (1+√10)(1−√10) = -9; numerator = (1−√10) − (1+√10) = −2√10; so the answer is −2√10/(-9) = 2√10/9	5

My score: _____ / 69 Questions 1–15 = 45 marks (Foundation focus)