Answers and mark guide

Q	Answer	Working	Marks
1	**5/13**	5 of the 13 girls	3
2	**10/21**	10 of the 21 who like it	3
3	**16/25**	Restrict to the boys	3
4	**15/23**	Restrict to those who dislike it	3
5	**10/13**	Restrict to those who dislike it	3
6	**4/9**	4 red left out of 9	3
7	**2/9**	5/10 × 4/9	4
8	**6/7**	6 blue left out of 7	3
9	**5/9**	2 × 5/10 × 5/9	4
10	**15/56**	5/8 × 3/7	4
11	**5/9**	P(R then R) ÷ P(second is R)	5
12	**1/4**	P(RR) + P(BR)	5
13	**0.4**	0.2 ÷ 0.5	3
14	**0.3**	P(A) × P(B | A)	3
15	**0.3**	0.12 ÷ 0.4	3
16	**Yes: P(A | B) = P(A)**	Independent events do not affect each other.	4
17	**0.067**	0.02 × 0.9 + 0.98 × 0.05 = 0.018 + 0.049	5
18	**0.27 (2 d.p.)**	P(positive) = 0.067? check: 0.018 + 0.98 × 0.05 = 0.067; 0.018 ÷ 0.067 = 0.269	6
19	**0**	Multiply three conditional probabilities	5
20	**0.5**	P(A and B) = 0.5 + 0.4 − 0.7 = 0.2; 0.2 ÷ 0.4	5

My score: _____ / 77 Questions 1–15 = 52 marks (Foundation focus)