Answers and mark guide

Q	Answer	Working	Marks
1	**1, 3, 5, 9, 15, 45**	Find all pairs that multiply to 45.	2
2	**8, 16, 24, 32**	8, 16, …	1
3	**No**	69 = 3 × 23	2
4	**31, 37, 41**	Check each number for factors.	2
5	**3 (or any other prime factor)**		1
6	**1, 2, 3, 4, 6, 12**	Factors of both numbers.	3
7	**24, 48, 72**	Multiples of 6 and 8: 24, 48, 72…	3
8	**1 × 28, 2 × 14, 4 × 7**	Factor pairs.	3
9	**102**	6 × 17	3
10	**10**	Factors: 1, 2, 3, 4, 6, 8, 12, 16, 24, 48	3
11	**24**	LCM of 6 and 8	3
12	**2, 3, 13**	Prime factors only.	3
13	**84, 91, 98**	7 × 12 = 84, 7 × 13 = 91, 7 × 14 = 98	3
14	**3, 6, 12, 24, 48**	Factors of 48: 1, 2, 3, 4, 6, 8, 12, 16, 24, 48	3
15	**4, 12, 20, 60**	Factors of 60: 1, 2, 3, 4, 5, 6, 10, 12, 15, 20, 30, 60	3
16	**25 or 49**	Numbers with exactly three factors are squares of primes: 25 = 5^2, 49 = 7^2.	4
17	**84**	21 × 4 = 84	4
18	**12**	12: 1, 2, 3, 4, 6, 12	5
19	**10, 20, 25**	Factors of 100: 1, 2, 4, 5, 10, 20, 25, 50, 100; multiples of 5 between 8 and 40	4
20	**7 and 13**	91 = 7 × 13	4

My score: _____ / **59** Questions 1–15 = 38 marks (Foundation focus)