Answers and mark guide

Q	Answer	Working	Marks
1	**9^8**	Add the powers: 4+4	1
2	**8^3**	Subtract the powers: 6−3	2
3	**9^{18}**	Multiply the powers: 6×3	2
4	**32**	2 multiplied by itself 5 times	2
5	**y^7**	Add the powers.	2
6	**1**	Anything to the power 0 is 1.	2
7	**1/343**	$7^{-3} = 1/7^3 = 1/343$	2
8	**a^6**	Subtract the powers.	2
9	**b^8**	Multiply the powers.	2
10	**5/8**	1/8 + 1/2 = 1/8 + 4/8	2
11	**$15x^8$**	Multiply the numbers, add the powers.	3
12	**$8x^{12}$**	Cube the 2 and multiply the power by 3.	3
13	**$4x^3$**	Divide the numbers, subtract the powers.	3
14	**$12x^3y^5$**	Multiply numbers; add powers of x and y separately.	3
15	**$9x^{10}$**	Square the number and double the power.	3
16	**x = 6**	Write 2^k and compare powers.	4
17	**x = 3**	4 = x + 1	4
18	**$2x^7y^2$**	$16x^{12}y^4 \div 8x^5y^2 = 2x^7y^2$	4
19	**x = 2**	2x − 1 = 3	4
20	**9/4**	Flip the fraction then square: $(3/2)^2 = 9/4$.	4

My score: _____ / 54 Questions 1–15 = 34 marks (Foundation focus)