Answers and mark guide

Q	Answer	Working	Marks
1	**$y = 3x^2$**	$y = kx^2$; $k = 3$	4
2	**$y = 2x^3$**	$y = kx^3$; $k = 2$	4
3	**$y = 9\sqrt{x}$**	$y = k\sqrt{x}$; $k = 9$	4
4	**$y = 4/x$**	$y = k/x$; $k = 4$	4
5	**$y = 7/x^2$**	$y = k/x^2$; $k = 7$	4
6	**1**	First $k = 5$; $y = 5 \times 1/5$	4
7	**175**	First $k = 7$; $y = 7 \times 25$	4
8	**5**	First $k = 5$; $y = 5 \times 1$	4
9	**20**	First $k = 5$; $y = 5 \times 4$	4
10	**1/3**	First $k = 2$; $y = 2 \times 1/6$	4
11	**4**	$y = 2/x^2$; solve for x	5
12	**1**	$y = 2/\sqrt{x}$; solve for x	5
13	**5**	$y = 3x^2$; solve for x	5
14	**6**	$y = 9x^3$; solve for x	5
15	**25**	$y = 2\sqrt{x}$; solve for x	5
16	**decrease of 33.3%**	New y ÷ old y = 0.6667	5
17	**decrease of 55.6%**	New y ÷ old y = 0.4444	5
18	**decrease of 4.7%**	New y ÷ old y = 0.9535	5
19	**increase of 21.0%**	New y ÷ old y = 1.2100	5
20	**increase of 237.5%**	New y ÷ old y = 3.3750	5

My score: _____ / 90 Questions 1–15 = 65 marks (Foundation focus)