Answers and mark guide

Q	Answer	Working	Marks
1	**$x = y - 7$**	Do the inverse operations in the reverse order.	2
2	**$x = y/4$**	Do the inverse operations in the reverse order.	2
3	**$x = (y - 8)/9$**	Do the inverse operations in the reverse order.	2
4	**$x = 6(y + 2)$**	Do the inverse operations in the reverse order.	2
5	**$t = (v - u)/a$**	Do the inverse operations in the reverse order.	2
6	**$r = \sqrt{(A/\pi)}$**	Undo each operation step by step.	3
7	**$w = P/2 - l$**	Undo each operation step by step.	3
8	**$x = 9y - 2$**	Undo each operation step by step.	3
9	**$a = 2s/t^2$**	Undo each operation step by step.	3
10	**$x = y/9 + 8$**	Undo each operation step by step.	3
11	**$x = (d - b)/(a - c)$**	Collect x terms on one side: $(a - c)x = d - b$.	4
12	**$b = 2A/h - a$**	Multiply by 2, divide by h, subtract a.	4
13	**$x = (y + 7)/11$**	Collect: $11x - 7 = y$	3
14	**$x = y^2 - 7$**	Square both sides, then subtract.	4
15	**$x = 3/y$**	Multiply by x, then divide by y.	4
16	**$x = (8y + 5)/(y - 1)$**	$y(x - 8) = x + 5$; $xy - 8y = x + 5$; $x(y - 1) = 5 + 8y$	5
17	**$x = (3y + 1)/(y - 2)$**	$y(x - 3) = 2x + 1$; $xy - 3y = 2x + 1$; $x(y - 2) = 1 + 3y$	5
18	**$x = (b + cy)/(c - a)$**	$ax + b = cx - cy$; $ax - cx = -cy - b$; $x(a - c) = -(b + cy)$	5
19	**$r = \sqrt[3]{(3V/4\pi)}$**	Multiply by 3, divide by 4π, then cube root.	5
20	**$u = \sqrt{(v^2 - 2as)}$**	Subtract 2as, then square root.	5

My score: _____ / **69** Questions 1–15 = 44 marks (Foundation focus)