1	$y = \frac{1}{x}$	B1	
	Additional Guidance		

2	$y = x^3 + 2$ or $a = 2$	M1	implied by at least two correct points identified or plotted from (–3, –25), (–2, –6), (–1, 1), (0, 2), (1, 3), (2, 10)
	At least five correct points identified or plotted for their value of a	M1	correct points are (–3, –25), (–2, –6), (–1, 1), (0, 2), (1, 3), (2, 10) may be seen in a table or in working
	Seven correct points plotted and joined with a smooth curve	A1	$\pm \frac{1}{2}$ square SC1 fully correct curve for $y = x^3$ for $-3 \leq x \leq 2$
	Additional Guidance		

Question	Answer	Mark	Comments
3	$y = \frac{k}{x}$	B1	

Q	Answer	Mark	Comments
4	A	B1	accept letter or graph circled

Q	Answer	Mark	Comments
5	Any two from: Reference to graph passing through point where $x = 0$ Reference to graph being incorrect for negative x values Reference to the graph stopping before the end of the axes/axis	B2	B1 any one correct reference eg the graph touches the y-axis eg the graph to the left of the y-axis should be below the x-axis eg the graph should go to the ends of the axes
	Additional Guidance		
	Ignore non-contradictory, irrelevant responses alongside a correct response		
	Draws correct graph		B2
	Draws graph with one section correct for positive values of x or negative values of x		B1 for that section
	'It isn't the graph of $y = \frac{1}{x}$' scores B0, but B1 may still be scored for the other criticism		
	'There are no numbers on the axes' scores B0, but B1 may still be scored for the other criticism		
	Mark for graph touching y-axis		
	You cannot have $x = 0$		B1
	The line in the top right should be moved to the right		B1
	It says x doesn't = 0 but it (the sketch) does		B1
	One line is touching the y-axis		B1
	The lines should be symmetrical		B0
	You cannot have $y = 0$		B0
	One line is touching the y-axis but the other isn't		B0

5 cont	**Mark for negative values being in the wrong quadrant**	
	There shouldn't be anything in the top-left section	B1
	There should be something in the bottom-left section	B1
	It is the graph of $y = \frac{1}{x^2}$	B1
	It should have rotational symmetry	B1
	It should be symmetrical about $y = x$	B1
	It should be symmetrical about $y = -x$	B1
	It should be symmetrical	B0
	One should be negative	B0
	The bit on the left is wrong	B0
	The negative values are plotted incorrectly	B0
	Reference to the graph stopping before the end of the axes	
	It stops before the end of the axes	B1
	The lines don't go far enough	B1
	The lines need to be higher up	B0

Q	Answer	Mark	Comments
6(a)	Substitutes a correct pair of coordinates and states that the equation is correct	B1	eg $18 = \frac{36}{2}$ so he is right
	Additional Guidance		
	Accept 'Yes' or a tick or any clear indication that he is correct		
	Do not accept pairs of values not on the graph		
	Do not accept a correct answer alongside an incorrect response unless clearly chosen		
	Do not accept a coordinate with no substitution seen		
	Pairs with integer x or y include $18 = \frac{36}{2}$, $15 = \frac{36}{2.4}$, $12 = \frac{36}{3}$, $10 = \frac{36}{3.6}$ $9 = \frac{36}{4}$, $8 = \frac{36}{4.5}$, $7.2 = \frac{36}{5}$, $6 = \frac{36}{6}$		
	Substituting values incorrectly eg $2 = \frac{36}{18}$ or $4 = \frac{36}{9}$		B0

Q	Answer	Mark	Comment
7	$y = x^3 + 1$	B1	