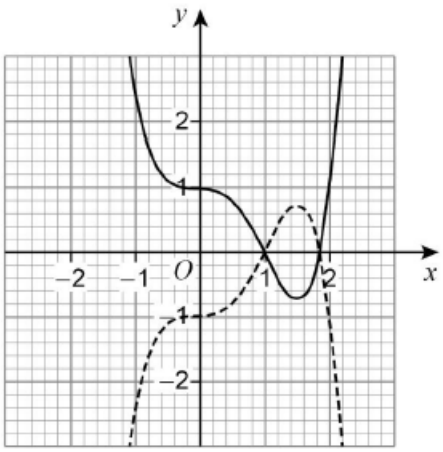
1	(7, 30)	B1	
	Additional Guidance		

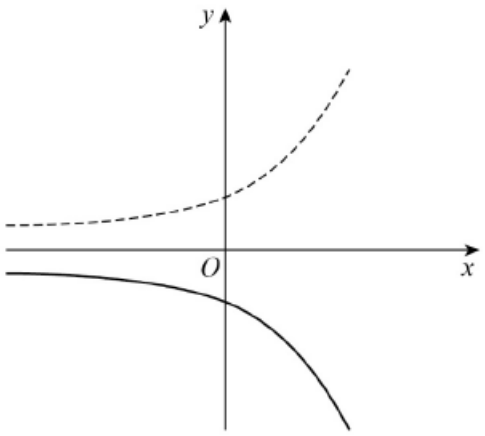
Question	Answer	Mark	Comments
2(a)	Correct graph (translated 90° to the right)	B1	mark intention
	Additional Guidance		
	Condone the graph starting at (90, 1)		
	Ignore the curve outside the domain $0 \leqslant x \leqslant 360$		

Question	Answer	Mark	Comments
2(b)	Correct graph (translated 1 up)	B1	mark intention
	Additional Guidance		
	Ignore the curve outside the domain $0 \leqslant x \leqslant 360$		

Question	Answer	Mark	Comments
2(c)	Correct statement	B1	eg this is $y = -\cos x$ $\cos 0 = 1$ it's upside down it should be the same as $\cos x$
	Additional Guidance		
	It has been reflected in the x-axis instead of the y-axis		B1
	It should have been reflected in the y-axis		B1
	It starts at –1 (instead of 1)		B1
	180 is above the x-axis		B1
	Correct curve drawn		B1
	$\cos(-180) = -1$		B1
	She has done $-y$ instead of $-x$		B1
	It can't start as a negative		B1
	It should go down not up		B0
	She shouldn't have flipped it		B0
	Ignore non-contradictory statements alongside a correct statement		B1

Q	Answer	Mark	Comment
3	Reflection of given graph in the x-axis	M1	mark intention
	Correct shape of graph from ([–1.5, –1], –3) through (0, –1) through (1, 0) maximum at ([1.4, 1.6], [0.6, 0.8]) through (1.8, 0) to ([2, 2.5], –3)	A1	
	Additional Guidance		
			M1A1
	Feathering or double lines or a split line, but intention to reflect in the x-axis		M1A0

Q	Answer	Mark	Comments
4(a)	$y = -x^2$	B1	oe equation eg $x^2 = -y$
	Additional Guidance		
	$y = -1x^2 + 0$		B1
	$y = -(x^2)$		B1
	$-x^2$		B0

Q	Answer	Mark	Comment
5(a)	Reflection of given graph in the x-axis	B1	mark intention
	Additional Guidance		
			

Q	Answer	Mark	Comment
5(b)	Translation downwards of given graph which must go through (0, 0)	B1	mark intention, but must be negative for negative values of x and be positive for positive values of x drawn below dashed line
	Additional Guidance