

Question Number	Scheme	Marks
(i) $y = f(-x) + 1$	<p>Shape of </p> <p>and must have a maximum in quadrant 2 and a minimum in quadrant 1 or on the positive y-axis.</p> <p>Either $(\{0\}, 2)$ or $A'(-2, 4)$</p> <p>Both $(\{0\}, 2)$ and $A'(-2, 4)$</p>	B1 B1 B1
(ii) $y = f(x + 2) + 3$	<p>Any translation of the original curve.</p> <p>The translated maximum has either x-coordinate of 0 (can be implied) or y-coordinate of 6.</p> <p>The translated curve has maximum $(\{0\}, 6)$ and is in the correct position on the Cartesian axes.</p>	B1 B1 B1
(iii) $y = 2f(2x)$	<p>Shape of </p> <p>with a minimum in quadrant 2 and a maximum in quadrant 1.</p> <p>Either $(\{0\}, 2)$ or $A'(1, 6)$</p> <p>Both $(\{0\}, 2)$ and $A'(1, 6)$</p>	B1 B1 B1