

Q	Marking Instructions	AO	Marks	Typical Solution
6(a)	Uses either of the given coordinates in the given equation (accept product of the roots)	AO1.1a	M1	$k = 4(2 + \sqrt{5}) - (2 + \sqrt{5})^2 = -1$ <b>ALT</b> $k = 4(2 - \sqrt{5}) - (2 - \sqrt{5})^2 = -1$
	Obtains the correct value of $k$	AO1.1b	A1	<b>ALT</b> $k = (2 - \sqrt{5})(2 + \sqrt{5}) = -1$
6(b)	Sketches a graph with the correct shape ✓	AO1.2	B1	
	Deduces correct relative positioning of intersections with axes (must see labels)	AO2.2a	B1	
	Deduces minimum lies to right of $y$ -axis in fourth quadrant	AO2.2a	B1	
<b>Total</b>			<b>5</b>	