

Question			Answer	Marks	AO	Guidance	
1			$16 - 4(k + 3)$ $-4k - 12 + 16 > 0$ $4k - 4 < 0$ $k < 1$	M1* A1 M1dep * A1 [4]	1.1 2.3 1.1 1.1	Attempt discriminant Obtain correct inequality Attempt to solve their inequality or equation for k Obtain $k < 1$	Allow $b^2 + 4ac$ for M1, but nothing else Not necessarily expanded OR (completing the square or differentiating) M1* – attempt to complete the square, or differentiate, and link minimum point to 0 A1 – obtain $(k + 3) - 4 < 0$ M1d* – solve their inequality or equation A1 – obtain $k < 1$ OR (using perfect square) M1* – link $k + 3$ to 4 A1 – obtain $k + 3 < 4$ M1d* – solve their inequality or equation A1 – obtain $k < 1$