

Q1. (2022)

Q	Answer	Mark	Comments									
29	$(x - 9)^2 \dots$	M1	allow $\left(x - \frac{18}{2}\right)^2 \dots$ may be implied by a grid for $(x - 9)^2$									
	$(x - 9)^2 - 9^2 + 70$ or $(x - 9)^2 - 81 + 70$ or $(x - 9)^2 - 11$	M1dep	oe completing the square eg $\left(x - \frac{18}{2}\right)^2 - \left(\frac{18}{2}\right)^2 + 70$									
	(9, -11) with correct completing the square seen	A1	eg (9, -11) with $(x - 9)^2 - 9^2 + 70$ seen SC1 (9, -11) with correct completing the square not seen									
	Additional Guidance											
	Allow $(x - 9)^2$ to be $(9 - x)^2$ throughout											
	Allow $(x - 9)^2$ to be $(x - 9)(x - 9)$ throughout											
	Condone expression = 0 throughout											
	$(x - 9)^2 = 11$ with $(x - 9)^2 - 11 (= 0)$ also seen scores M1M1 Also scores A1 if answer correct											
	$(x - 9)^2 = 11$ without $(x - 9)^2 - 11 (= 0)$ also seen Answer correct would still mean M1M0 (or SC1)		M1M0									
	Allow as a slip if completing the square seen but the squared is omitted in a subsequent line eg $(x - 9)^2 - 81 + 70 = (x - 9) - 11$ Answer (9, -11)		M1M1 A1									
$(x - 9) - 11$ and answer (9, -11)		SC1										
$(x - 9) - 11$ and answer not (9, -11)		M0M0A0										
(9, -11) with no method or from a different method eg calculus		SC1										
<table border="1"><tr><td></td><td>x</td><td>-9</td></tr><tr><td>x</td><td>x²</td><td>-9x</td></tr><tr><td>-9</td><td>-9x</td><td>81</td></tr></table>			x	-9	x	x ²	-9x	-9	-9x	81	Condone one of the products missing or incorrect	M1
	x	-9										
x	x ²	-9x										
-9	-9x	81										