

Quadratic Formula		
1	Solve the equation $2x^2 + 4x - 9 = 0$ , giving your answers correct to one decimal place.	3
2	Solve the equation $5x^2 - 7x - 2 = 0$ , giving your answers correct to one decimal place.	3
3	Solve the equation $2x^2 + 5x - 1 = 0$ , giving your answers correct to one decimal place.	3
4	Solve the equation $x^2 - 6x - 3 = 0$ , giving your answers correct to one decimal place.	3
5	Solve the equation $4x^2 - 7x + 1 = 0$ , giving your answers correct to one decimal place.	3
<b>15 marks</b>		

Quadratic Formula - Answers			
1	Mark 1 correct substitution into the quadratic formula Mark 2 evaluate discriminant Mark 3 calculate both roots correct to <b>one decimal place</b>	$x = \frac{-4 \pm \sqrt{4^2 - 4 \times 2 \times (-9)}}{2 \times 2}$ $b^2 - 4ac = 88$ $x = \mathbf{1.3 \text{ and } -3.3}$	3
2	Mark 1 correct substitution into the quadratic formula Mark 2 evaluate discriminant Mark 3 calculate both roots correct to <b>one decimal place</b>	$x = \frac{-(-7) \pm \sqrt{(-7)^2 - 4 \times 5 \times (-2)}}{2 \times 5}$ $b^2 - 4ac = 89$ $x = \mathbf{1.6 \text{ and } -0.2}$	3
3	Mark 1 correct substitution into the quadratic formula Mark 2 evaluate discriminant Mark 3 calculate both roots correct to <b>one decimal place</b>	$x = \frac{-5 \pm \sqrt{5^2 - 4 \times 2 \times (-1)}}{2 \times 2}$ $b^2 - 4ac = 33$ $x = \mathbf{0.2 \text{ and } -2.7}$	3
4	Mark 1 correct substitution into the quadratic formula Mark 2 evaluate discriminant Mark 3 calculate both roots correct to <b>one decimal place</b>	$x = \frac{-(-6) \pm \sqrt{(-6)^2 - 4 \times 1 \times (-3)}}{2 \times 1}$ $b^2 - 4ac = 48$ $x = \mathbf{6.5 \text{ and } -0.5}$	3
5	Mark 1 correct substitution into the quadratic formula Mark 2 evaluate discriminant Mark 3 calculate both roots correct to <b>one decimal place</b>	$x = \frac{-(-7) \pm \sqrt{(-7)^2 - 4 \times 4 \times 1}}{2 \times 4}$ $b^2 - 4ac = 33$ $x = \mathbf{1.6 \text{ and } 0.2}$	3