	Solving Quadratics Through Factorising Mark Scheme	
1(a)	$(x - 7)(x + 8) = 0$	[1] Factorising
	$x = -8$ or $x = 7$	[2] For both correct answers
1(b)	$(x - 2)(x - 2)$	[1] Factorising
	$x = 2$	[1] For correct answer
1(c)	$(x + 4)(x + 8)$	[1] Factorising
	$x = -4$ or $x = -8$	[2] For both correct answers
1(d)	$(x + 7)(x - 5)$	[1] Factorising
	$x = -7$ or $x = 5$	[2] For both correct answers
2(a)	$x^2 + 5x - 6 = 0 \Rightarrow (x + 6)(x - 1) = 0$	[1] Rearranging and factorising
	$x = -6$ or $x = 1$	[2] For both correct answers
2(b)	$x^2 - 3x - 40 = 0 \Rightarrow (x - 8)(x + 5) = 0$	[1] Rearranging and factorising
	$x = 8$ or $x = -5$	[2] For both correct answers
2(c)	$x^2 - 6x + 5 = 0 \Rightarrow (x - 5)(x - 1)$	[1] Rearranging and factorising
	$x = 5$ or $x = 1$	[2] For both correct answers
2(d)	$x^2 + 3x - 18 = 0 \Rightarrow (x - 3)(x + 6)$	[1] Rearranging and factorising
	$x = 3$ or $x = -6$	[2] For both correct answers
3(a)	$(3x - 2)(x + 4) = 0$	[1] Factorising
	$x = \dfrac{2}{3}$ or $x = -4$	[2] For both correct answers
3(b)	$x^2 + 13x + 42 = 0 \Rightarrow (x + 6)(x + 7) = 0$	[1] Factorising
	$x = -6$ or $x = -7$	[2] For both correct answers
3(c)	$(8x + 6)(x + 5)$	[1] Rearranging and factorising
	$x = -\frac{3}{4}$ or $x = -5$	[2] For both correct answers

3(d)	$x^2 + 10x - 11 = 0 \Rightarrow (x - 1)(x + 11) = 0$	[1] Rearranging and factorising
	$x = 1$ or $x = -11$	[2] For both correct answers
4	Area of Triangle $= \dfrac{1}{2} \text{base} \times \text{height} \Rightarrow \dfrac{1}{2}(x + 3)(4) = 2x + 6$	[1] Correct formula used
	Volume of Prism $= 7x \times (2x + 6) = 14x^2 + 42x$	[1] Correct substitution
	$14x^2 + 42x = 140$ $x^2 + 3x - 10 = 0$	[1] Formation of quadratic equation
	$(x + 5)(x - 2) = 0$	[1] Factorising
	$x = 2$	[1] Correct answer, do no accept $x = -5$

END