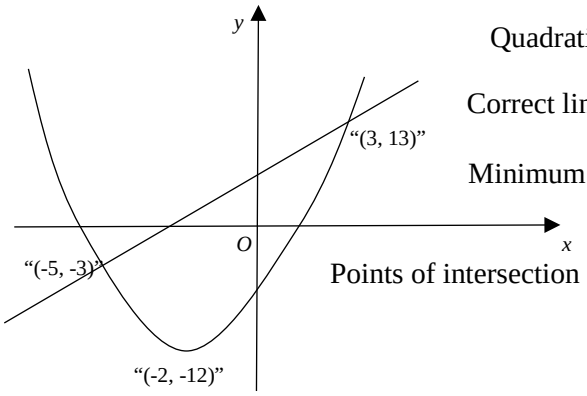
Question number	Scheme	Marks
2 (a)	$(x+2)^2-4-8$	M1
	$(x+2)^2-12$ $\quad a=2 \quad b=-12$	A1 (2)
(b)	$x^2+4x-8=2x+7$	M1
	$x^2+2x-15=0$	dM1
	$(x-3)(x+5)=0$ or any valid method	M1
	$x=3, y=13$ $\quad x=-5, y=-3$	A1 A1 (5)
(c)	 Quadratic drawn	B1
	Correct line drawn	B1
	Minimum labelled	B1 ft
	Points of intersection labelled	B1 ft (4)
		[11]

Part	Mark	Additional Guidance
(a)	M1	Use general guidance, allow an expression of the form $\left(x\pm\frac{4}{2}\right)^2\pm q\pm 8 \quad q\neq 0$
	A1	Correct expression as shown, *a* and *b* need not be explicitly stated
(b)	M1	Correctly equates the 2 expressions
	dM1	Rearranges to a 3TQ = 0 (allow any 3TQ if intention of rearrangement is clear)
	M1	Uses any valid method to solve – **see general guidance**
	A1	For either pair of values stated
	A1	For all four values, correctly paired or written as coordinates.
	For the final A1 A1, do not allow recovery of *y* values from part c.	
(c)	B1	Correctly shaped quadratic curve, with a clear minimum point, drawn anywhere on their axis, mark intention.
	B1	Correct line – **must have a positive y intercept, a positive gradient and a negative x intercept**
	B1ft	Correctly labelled coordinates for their minimum, ft their answer from b, **must correctly ft their answer from a, ie minimum point labelled (- *a, b*)**
	B1ft	Correctly labelled coordinates for their intersections.
	The coordinates must be clearly indicated and not inferred from a scale on the graph. Ignore any labelling of intersections with axes.	