Question		Answer	Marks	AO	Guidance
12		**DR** midpoint of PQ is $(5, 6)$	**B1**	**3.1a**	Allow correct unsimplified eg. $\left(\frac{1+9}{2}, \frac{4+8}{2}\right)$ or as x and y values eg $x_1 = 5, y_1 = 6$
		gradient of PQ is $\frac{1}{2}$	**B1**	**1.1**	Can be implied by correct gradient for perpendicular bisector
		gradient of perpendicular bisector is $\frac{-1}{\frac{1}{2}}[= -2]$	**M1***	**2.1**	**FT** $\frac{-1}{\text{their}\frac{1}{2}}$ do not allow for "negative reciprocal" stated unless correct numerical expression or value seen from their $\frac{1}{2}$
		$y - 6 = -2(x - 5)$ **oe**	**M1dep***	**1.1**	**FT** their $(5, 6)$ and their –2; may see $y = -2x + 16$ If no mid-point found allow for a correct equation (**FT** their –2) or for an equation using any clearly stated point other than (1, 4) or (9, 8) Must be an equation but condone variables other than x and y used.
		substitution of $y = 0$ to obtain $(8,0)$	**A1**	**3.2a**	Must see substitution; may see eg $0 - 6 = -2x + 10$
			[5]		