Q	Marking instructions	AO	Mark	Typical solution
4	Uses negative reciprocal to obtain equation with correct gradient	3.1a	M1	$-4x+5y=k$ $x=1$ $\Rightarrow 5+4y=17$ $\Rightarrow y=3$ $k=-4\times1+5\times3=11$ $5y-4x=11$ $y=\frac{4}{5}x+\frac{11}{5}$
	Obtains correct x coordinate of midpoint Or obtains correct equations of lines through A and B perpendicular to AB $5y-4x=31.5 \qquad 5y-4x=-9.5$ OE	1.1b	B1	
	Substitutes their mid-point value of x to obtain value of y coordinate of midpoint (not in terms of *a* or *b*) Or Finds a value for their $\frac{a+b}{2}$ Or Finds k by adding correct equations of lines through A and B perpendicular to AB Or equating intercepts.	1.1a	M1	
	Obtains correct equation **ACF** Eg $y=\frac{4}{5}x+c, \quad c=2.2$ **ISW** once correct answer seen.	1.1b	A1	
	Total		**4**	