

Question	Answer	Marks	Guidance
(a)	Equation of BC is $\{y=\}\{2\}\{-3x\}$	B2, 1, 0	OE forms $y + 4 = -3(x - 2)$ or $y - 2 = -3(x - 0)$.
		2	
(b)	$(x - 2)^2 + (2 - 3x + 4)^2 = 20$	*M1	OE Sub line equation into equation of circle to eliminate y .
	$10(x - 2)^2 = 20$ or $[10](x^2 - 4x + 2)[= 0]$	A1	OE Accept $(10x^2 - 40x + 20)$.
	$x - 2 = [\pm]\sqrt{2}$ or $x = \frac{4[\pm]\sqrt{16-8}}{2}$	DM1	Correctly solving <i>their</i> quadratic.
	$x = 2 - \sqrt{2}$	A1	OE only solution. Answer only SC B1 If DM1 not scored.
	$y = 3\sqrt{2} - 4$	A1	OE only solution. Answer only SC B1 If DM1 not scored.
		5	

