	Question		Answer	Mark	Guidance
5	**(a)**		Midpoint AB is (3.5, 5.5); Gradient $AB = -\frac{1}{7}$	**B1**	Both. Allow midpoint $= (\frac{0+7}{2}, \frac{6+5}{2})$ ISW
			Gradient of perpendicular bisector $-1/(-\frac{1}{7})$	**M1**	$(= 7)$
			$y - 5.5 = 7(x - 3.5)$ oe ISW	**A1**	cao. Correct answer, no working or inadequate working: SC B2
			Midpt AB is (3.5, 5.5); Gradient $AB = -\frac{1}{7}$	**B1**	Both
			$(y = 7x + c)$ $5.5 = 7 \times 3.5 + c$	**M1**	ft their midpt and gradient, NOT $-\frac{1}{7}$
			$y = 7x - 19$	**A1**	cao. Any correct form
			$x^2 + (y - 6)^2 = (x - 7)^2 + (y - 5)^2$	**M1** **M1**	Attempt expansion
			$-12y + 36 = -14x - 10y + 49 + 25$ ISW	**A1**	cao. Any correct form eg $y = 7x - 19$
				[3]	
5	**(b)**		Perpendicular bisector of BC is $x + 7y - 17 = 0$ OR of CA is $4y = 3x - 1$	**B1**	Any correct form for another perp bisector
			Example method, perp bisectors of AB & BC: $x + 7(7x - 19) - 17 = 0$ $(\Rightarrow x = 3)$	**M1**	Attempt solve simultaneously equations of two perpendicular bisectors. Can be implied
			Alternative method for 1st two marks Grad BC is 7 so BC & AB perpendicular Hence AC is a diameter	**M1** **B1**	
			Centre is (3, 2) eg Radius$^2 = 3^2 + (6 - 2)^2 = 25$	**B1** **M1**	cao. NB, if centre $= (3, 2)$ without clear working, B0M0B1 Correct method for r^2 or r using their centre & A or B or C
			Equn of circle is $(x - 3)^2 + (y - 2)^2 = 25$ or $x^2 - 6x + y^2 - 4y = 12$ oe	**A1ft**	ISW. ft their centre & radius, dep both M1 marks
				[5]	