Q	Marking instructions	AO	Marks	Typical solution
12(a)(i)	Obtains $(-5, -2)$	1.1b	B1	$(-5, -2)$
	Subtotal		**1**	

Q	Marking instructions	AO	Marks	Typical solution
12(a)(ii)	Obtains 5	2.2a	B1	5
	Subtotal		**1**	

Q	Marking instructions	AO	Marks	Typical solution
12(a)(iii)	Obtains $x = -10$	2.2a	B1	$x = -10$
	Subtotal		**1**	

Q	Marking instructions	AO	Marks	Typical solution
12(b)	Forms the expression $r^2 + 3.75^2$	3.1a	M1	$\sqrt{5^2 + 3.75^2} = 6.25$ Possible values for radius $6.25 - 5 = 1.25$ $6.25 + 5 = 11.25$
	Evaluates their 6.25 + their r or their 6.25 – their r	2.2a	M1	
	Obtains 1.25 or 11.25	1.1b	A1	
	Obtains 1.25 and 11.25	1.1b	A1	
	Subtotal		**4**	

	Question 12 Total		**7**	