

Q	Marking instructions	AO	Marks	Typical solution
6	Equates the equation of the curve to the equation of the line	1.1a	M1	$2x^2 + px + 1 = 5x - 2$ $2x^2 + (p - 5)x + 3 = 0$ Discriminant is $(p - 5)^2 - 24$ $= p^2 - 10p + 1$ $p^2 - 10p + 1 > 0$ $p > 5 + 2\sqrt{6} \text{ or } p < 5 - 2\sqrt{6}$
	Obtains the correct quadratic in form $f(x) = 0$ ACF	1.1b	A1	
	Obtains $(p - 5)^2 - 24$ ACF	1.1b	A1	
	Sets their discriminant to be > 0 Condone non-strict inequality here, but discriminant cannot contain terms in x Or Solves their discriminant = 0 to obtain exact values of p	1.1a	M1	
	Obtains correct inequalities ACF but must be exact	1.1b	A1	
Question 6 Total			5	