22	$x^2+(x+2)^2-2(x+2)=24$		5	M1	for substituting linear equation into the quadratic equation
	$2x^2 + 2x - 24$ (=0) or $x^2 + x - 12$ (=0) or $2x^2 + 2x = 24$ or $x^2 + x = 12$			A1	for a correct equation in the form $ax^2 + bx + c = 0$ or $ax^2 + bx = -c$
	$(x + 4)(x - 3)$ (= 0) or $x=\frac{-1\pm\sqrt{1^2-(4\times1\times-12)}}{2\times1}$ or $\left(x-\frac{1}{2}\right)^2-\left(\frac{1}{2}\right)^2-12=0$			M1ft	dep on M1 for solving their quadratic equation using any correct method (allow one sign error and some simplification – allow as far as $\frac{-1\pm\sqrt{1+48}}{2}$) or if factorising, allow brackets which expanded give 2 out of 3 terms correct)
	$x = -4$ and $x = 3$			A1	for both x values dep on M1
	(−4, −2) and (3, 5)	(−4, −2) and (3, 5)		A1	for both solutions dep on M1
Alternative mark scheme for 22					
	$(y-2)^2+y^2-2y=24$		5	M1	for substituting linear equation into the quadratic equation
	$2y^2 - 6y - 20$ (=0) or $y^2 - 3y - 10$ (=0) $2y^2 - 6y = 20$ or $y^2 - 3y = 10$			A1	for a correct equation in the form $ay^2 + by + c = 0$ or $ay^2 + by = -c$
	$(y-5)(y+2)=0$ or $y=\frac{--3\pm\sqrt{(-3)^2-(4\times1\times-10)}}{2\times1}$ or $\left(y-\frac{3}{2}\right)^2-\left(\frac{3}{2}\right)^2-10=0$			M1ft	dep on M1 for solving their quadratic equation using any correct method (allow one sign error and some simplification – allow as far as $\frac{3\pm\sqrt{9+40}}{2}$) or if factorising, allow brackets which expanded give 2 out of 3 terms correct
	$y = 5$ and $y = -2$			A1	for both y values dep on M1
	(−4, −2) and (3, 5)	(−4, −2) and (3, 5)		A1	for both solutions dep on M1
					Total 5 marks