Eq1: $x^2 - y = 4$

Eq2: $4x^2 + y^2 = 12$

1) Solve Eq1 for x^2 to get $x^2 = 4 + y$

2) Plug the result from step 1) into the second equation, replacing x^2 with $4+y$

$4(4 + y) + y^2 = 12$ Replace

$16 + 4y + y^2 = 12$ Distribute

$16 - 12 + 4y + y^2 = 0$ Move 12 to the left

$4 + 4y + y^2 = 0$ Simplify

$y^2 + 4y + 4 = 0$ Rewrite with y^2 leading

$(y+2)(y+2)=0$ Factor

$y=-2$ Solve for y

3) From step 1) above, we know that $x^2 = 4+y$, so we can solve for x by replacing y with -2.

$x^2 = 4 - 2$

$x^2 = 2$

So $x=-\sqrt{2}$ or $x=\sqrt{2}$ Thus the two points are $(\sqrt{2}, -2)$ and $(\sqrt{2}, -2)$