Some examples of solving certain types of quadratic equations.

1. To solve a problem like this: $x^2 = 9$

   Take the square root of both sides of the equation, giving this: $\sqrt{x^2} = \sqrt{9}$

   However, whenever you solve an equation by taking an even root of both sides, you need to remember that the square root of a number has both a positive and negative root, so take this into account by using the ± notation. like this:

   $\sqrt{x^2} = \pm\sqrt{9}$

   Which simplifies to:

   $x = \pm 3$ (since the square root of x^2 is x and the square root of 9 is 3.

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2. Now, for a slightly more complicated problem like this: $(m-4)^2 = 25$

   Take the square root of both sides of the equation, giving this: $\sqrt{(m-4)^2} = \sqrt{25}$

   However, whenever you solve an equation by taking an even root of both sides, you need to remember that the square root of a number has both a positive and negative root, so take this into account by using the ± notation. like this:

   $\sqrt{(m-4)^2} = \pm\sqrt{25}$

   Which simplifies to:

   $m - 4 = \pm 5$ (since the square root of $(m-4)^2$ is (m - 4) and the square root of 25 is 5.

   So how do you finish? Easy! Just remember that ±5 really means both positive 5 and negative 5. So use both to find your final answer

   like this: $m - 4 = -5$ and $m - 4 = 5$

   $\Longrightarrow m = -1$ and $m = 9$

   so your two answers are m = -1 and m = 9.