Correct. Rewrite in standard form by subtracting $12x - 23$ from both sides: $x^2 - 10x + 24 = 0$

Use the Quadratic Formula, $x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$, with $a = 1$, $b = -10$, and $c = 24$:

$x = \frac{-(-10) \pm \sqrt{(-10)^2 - 4(1)(24)}}{2 \cdot 1} = \frac{10 \pm \sqrt{100 - 96}}{2} = \frac{10 \pm \sqrt{4}}{2} = \frac{10 \pm 2}{2}$

So $x = \frac{10 + 2}{2} = \frac{12}{2} = 6$ or $x = \frac{10 - 2}{2} = \frac{8}{2} = 4$