

12.10.15

Solve using square roots.
(Isolate and solve for n.)

$$7p^2 + 16 = 2151$$

$$\begin{array}{r} -16 \\ -16 \end{array}$$

$$\frac{7p^2}{7} = \frac{2135}{7}$$

$$\sqrt{p^2} = \sqrt{305}$$

$$\boxed{\begin{array}{l} p = \pm \sqrt{305} \\ p = \pm 17.46 \end{array} \text{ OR } }$$

$$\begin{array}{r} 25 \\ -5 \quad -5 \\ -10 \\ \hline x \quad -5 \end{array}$$

x	x ²	-5x
-5	-5x	25

$$ax^2 + bx + c = 0$$

Solve by completing the square.
(Use your notes from Monday.)

$$a=1 \quad b=-10 \quad c=18$$

$$x^2 - 10x + 26 = 8$$

$$\begin{array}{r} -26 \\ -26 \end{array}$$

$$x^2 - 10x = -18 \quad \textcircled{1}$$

$$\frac{b}{2} = \frac{-10}{2} = -5 \quad \textcircled{2}$$

$$(-5)^2 = 25 \quad \textcircled{3}$$

$$x^2 - 10x + 25 = 7$$

$$(x-5)(x-5) = 7 \quad \textcircled{4}$$

$$\sqrt{(x-5)^2} = \sqrt{7}$$

$$x-5 = \pm \sqrt{7} \quad \textcircled{5}$$

$$\begin{array}{l} x-5 = \sqrt{7} \\ +5 \quad +5 \end{array} \quad \begin{array}{l} x-5 = -\sqrt{7} \\ +5 \quad +5 \end{array}$$

$$\boxed{x = 5 + \sqrt{7} \quad x = 5 - \sqrt{7}}$$