

12.9.15

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

$$\begin{array}{r}
 -10 - 5n^2 = -330 \\
 +10 \quad +10 \\
 \hline
 -5n^2 = -320 \\
 \hline
 -5 \quad -5 \\
 \hline
 \sqrt{n^2} = \sqrt{64} \\
 \boxed{n=8 \quad n=-8}
 \end{array}$$

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

$$\begin{array}{l}
 a=1 \quad b=-2 \quad c=-3 \\
 x^2 - 2x - 3 = 0 \\
 \quad +3 \quad +3 \\
 x^2 - 2x = 3 \quad \textcircled{1} \\
 \quad +1 \quad +1 \\
 \frac{b}{2} = \frac{-2}{2} = -1 \quad \textcircled{2} \\
 (-1)^2 = 1 \\
 x^2 - 2x + 1 = 4 \quad \textcircled{3} \\
 \sqrt{(x-1)^2} = \sqrt{4} \quad \textcircled{4} \\
 x-1 = \pm 2 \\
 \begin{array}{cc}
 x-1 = 2 & x-1 = -2 \\
 +1 & +1 \\
 \hline
 \boxed{x=3} & \boxed{x=-1}
 \end{array}
 \end{array}$$