Module 13 Solving Quadratic Equations of One Variable
Lesson 3 Solving Quadratic Equations by Factoring

## Lesson Objective

- Solve quadratic equations by factoring.

The Zero Product Property says if $a b=0$, then $\mathbf{a}=\mathbf{0}$
or $\boldsymbol{b}=\mathbf{0}$
To solve a quadratic equation by factoring:

- Make one side of the equation equal to zero
- Factor
- Set each factor equal to zero
- Solve each equation separately.
(1) Solve: $(x-8)(x+2)=0$
\{8, -2\}
Solve: $3 x^{2}+7 x-10=-4$
$\left\{\frac{2}{3},-3\right\}$
(3) Solve: $2 x^{2}-7 x=3 x$
$\{0,5\}$

