LT 3.6 Honors Skills Practice
Solving Quadratic Equations by Factoring

Solve the following quadratic equations by factoring.

1. $3x^2 - 12 = 0$

$\textcolor{red}{3(x^2 - 4) = 0}$

$\textcolor{red}{3(x - 2)(x + 2) = 0}$

$\boxed{\textcolor{red}{x = 2, -2}}$

2. $15x^2 - 240 = 0$

$\textcolor{red}{x = 4, -4}$

3. $9x^2 - 25 = 0$

$\textcolor{red}{x = -5/3, \; 5/3}$

4. $x^2 - 121 = 0$

$\textcolor{red}{x = 11, \; -11}$

Solve each equation by factoring.

5. $64x^2 + 112x + 49 = 0$

$\textcolor{red}{x = -7/8, \; -7/8}$

6. $289x^2 + 34x + 1 = 0$

$\textcolor{red}{x = -1/17, \; -1/17}$

7. $121x^2 - 88x + 160 = 0$

$\textcolor{red}{x = 4/11, \; 4/11}$

8. $x^2 - 20x + 100 = 0$

$\textcolor{red}{x = 10, \; 10}$

Challenge: Factor

9. $144x^2 + 24xy + 9y^2 = 0$

$\textcolor{red}{(12x + y)^2 = 0}$

10. $x^2 - 6xy + 9y^2 = 0$

$\textcolor{red}{(x - 3y)^2 = 0}$