

## Factoring Trinomial 1 (with Coefficients)

ex 1)  $2x^2 + 16x + 24$   
 $2(x^2 + 8x + 12)$   
 $2(x+6)(x+2)$

$$\begin{array}{cc} 1 & 12 \\ \hline 2 & 6 \\ 3 & 4 \end{array}$$

ex 2)  $3x^2 - 12x - 36$   
 $3(x^2 - 4x - 12)$   
 $3(x-6)(x+2)$

$$\begin{array}{cc} -1 & 12 \\ -2 & 6 \\ -3 & 4 \end{array} \quad \begin{array}{cc} 1 & -12 \\ \hline 2 & -6 \\ 3 & -4 \end{array}$$

ex 3)  $4x^2 - 4x - 24$   
 $4(x^2 - x - 6)$   
 $4(x+2)(x-3)$

$$\begin{array}{cc} -1 & 6 \\ -2 & 3 \end{array} \quad \begin{array}{cc} 1 & -6 \\ \hline 2 & -3 \end{array}$$

ex 4)  $2x^2 + 4x - 30$   
 $2(x^2 + 2x - 15)$   
 $2(x-3)(x+5)$

$$\begin{array}{cc} -1 & 15 \\ -3 & 5 \end{array} \quad \begin{array}{cc} 1 & -15 \\ 3 & -5 \end{array}$$

ex 5)  $2x^3 - 16x^2 + 30x$   
 $2x(x^2 - 8x + 15)$   
 $2x(x-3)(x-5)$

$$\begin{array}{cc} 1 & 15 \\ 3 & 5 \end{array} \quad \begin{array}{cc} -1 & -15 \\ \hline -3 & -5 \end{array}$$

ex 6)  $4x^3 + 24x^2 + 20x$   
 $4x(x^2 + 6x + 5)$   
 $4x(x+1)(x+5)$

Quiz-Friday  
Gold WS