

## 4.4 Review / Warm - up

**VIDEO!**

Factor the following Trinomials.

$$1. \quad x^2 + 7x + 6$$

$$(x+1)(x+6)$$

$$\begin{array}{r} 6 \\ 1 \quad 6 \\ \hline 2 \quad 3 \end{array}$$

$$2. \quad x^2 - 14x + 24$$

$$(x-2)(x-12)$$

$$\begin{array}{r} 24 \\ 1 \quad 24 \\ \hline -2 \quad -12 \\ \hline 3 \quad 8 \\ \hline 4 \quad 6 \end{array}$$

Solve.

$$3. \quad x^2 - 3x - 18 = 0$$

$$(x+3)(x-6) = 0$$

$$\begin{array}{r} x+3=0 \\ -3 \quad -3 \\ \hline \end{array} \quad \begin{array}{r} x-6=0 \\ +6 \quad +6 \\ \hline \end{array}$$

$$x = -3$$

$$x = 6$$

$$\begin{array}{r} -18 \\ 1 \quad -18 \\ \hline -2 \quad -9 \\ \hline -3 \quad 6 \\ \hline 3 \quad -6 \end{array}$$

$$4. \quad x^2 - x = 20$$

$$x^2 - x - 20 = 0$$

$$(x+4)(x-5) = 0$$

$$\begin{array}{r} x+4=0 \\ -4 \quad -4 \\ \hline \end{array} \quad \begin{array}{r} x-5=0 \\ +5 \quad +5 \\ \hline \end{array}$$

$$x = -4$$

$$x = 5$$

$$\begin{array}{r} -20 \\ 1 \quad -20 \\ \hline -2 \quad 10 \\ \hline -4 \quad 5 \\ \hline 4 \quad -5 \end{array}$$