

\* Factor each of the following:

$$x^2 - 10x + 25$$

$\uparrow$        $\uparrow$        $\uparrow$   
 $1^2$      $2(5)$      $5 \cdot 5$

$$(x-5)(x-5) \rightarrow \underline{\underline{(x-5)^2}}$$

$$y^2 + 20y + 100$$

$\uparrow$        $\uparrow$        $\uparrow$   
 $1^2$      $2(10)$      $10 \cdot 10$

$$\begin{array}{r} 100 \\ 1 \cdot 100 \\ 2 \cdot 50 \\ 4 \cdot 25 \\ 5 \cdot 20 \\ \underline{10 \cdot 10} \end{array}$$

$$(y+10)(y+10) \rightarrow \underline{\underline{(y+10)^2}}$$

$$4a^2 + 28ac + 49c^2$$

$\uparrow$        $\uparrow$        $\uparrow$   
 $2 \cdot 2$      $2(2 \cdot 7)$      $7 \cdot 7$

$$(2a+7c)(2a+7c) \rightarrow \underline{\underline{(2a+7c)^2}}$$

$+14ac$      $+14ac$

$$\begin{array}{r} 4 \\ \hline 1 \cdot 4 \end{array} \quad \begin{array}{r} 49 \\ \hline 1 \cdot 49 \end{array}$$

$\circledast$   $2 \cdot 2$      $\circledast$   $14$      $\circledast$   $7 \cdot 7$   
 $\circledast$   $14$

Trinomial Square