

10.4 Factoring Trinomials

PRACTICE

Directions: Factor the trinomial.

1) $x^2 + 4x + 3$ $\begin{matrix} \times 3 \\ +4 \end{matrix}$
 $\frac{(x+3)(x+1)}{1}$

2) $b^2 - 17b + 72$ $\begin{matrix} \times 72 \\ + -17 \end{matrix}$
 $\frac{x(b-8)(b-9)}{+}$
 $(b-8)(b-9)$

3) $2y^2 - 3y - 2$ $\begin{matrix} \times -4 \\ + -3 \end{matrix}$
 $\frac{(2y-4)(2y+1)}{2}$
 $\frac{2(y-2)(2y+1)}{2}$
 $(y-2)(2y+1)$

4) $8y^2 + 2y - 3$ $\begin{matrix} \times -24 \\ + 2 \end{matrix}$
 $\frac{(8y+6)(8y-4)}{8}$
 $\frac{2(4y+3) \times (2y-1)}{8}$
 $(4y+3)(2y-1)$

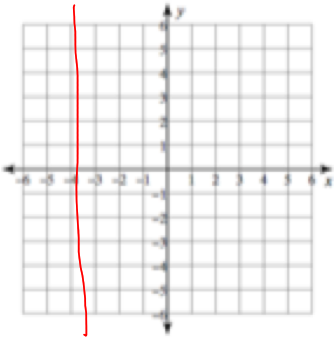
5) $6s^2 - s - 5$ $\begin{matrix} \times -30 \\ + -1 \end{matrix}$
 $\frac{(6s-4)(6s+5)}{6}$
 $\frac{6(s-1) \times (6s+5)}{6}$
 $(s-1)(6s+5)$

6) $m^2 - 7m - 120$ $\begin{matrix} \times -120 \\ + -7 \end{matrix}$
 $\frac{(m-15)(m+8)}{+}$
 $(m-15)(m+8)$

7) $2h^2 - 5h - 3$ $\begin{matrix} \times -6 \\ + -5 \end{matrix}$
 $\frac{(2h-6)(2h+1)}{2}$
 $\frac{2(h-3) \times (2h+1)}{2}$
 $(h-3)(2h+1)$

8) $c^2 - 144$ $\begin{matrix} \times -144 \\ + 0 \end{matrix}$
 $\frac{(c-12)(c+12)}{1}$
 $(c-12)(c+12)$

9) $4n^2 + 16n + 15$ $\begin{matrix} \times 60 \\ + 16 \end{matrix}$
 $\frac{(4n+6)(4n+10)}{4}$
 $\frac{2(2n+3) \times 2(2n+5)}{4}$
 $(2n+3)(2n+5)$

<p>10) $p^2 + 20p + 64$ $X=64$ $+20$ $\frac{(p+16)(p+4)}{y}$ $(p+16)(p+4)$</p>	<p>11) $x^2 + 3x - 70$ $X=70$ $+3$ $\frac{x(x-7)(x+10)}{y}$ $(x-7)(x+10)$</p>	<p>12) $4n^2 - 9$ $X=-36$ $+0$ $\frac{(4n-3)(4n+3)}{4}$ $\frac{2(2n-3)2(2n+3)}{y}$ $(2n-3)(2n+3)$</p>
SKILLZ REVIEW		
Graph.	List all pairs of numbers that multiply to the given number.	Which number pair contains the largest perfect square?
<p>1) $x = -4$</p> 	<p>2) 80 $1 \cdot 80$ $2 \cdot 40$ $4 \cdot 20$ $5 \cdot 16$ $8 \cdot 10$</p>	<p>3) Use 80 $5 \cdot 16$ $\quad \quad \quad \swarrow$ $\quad \quad \quad 4 \cdot 4$</p>