

Check these answers to HW Page 77:

$$4. \frac{24x^2}{x} - \frac{35x}{x}$$

$$\boxed{x(24x - 35)}$$



$$5. \frac{81x^2}{27x} - \frac{27x}{27x}$$

$$\boxed{27x(3x - 1)}$$

$$6. \frac{15y^2}{3y} + \frac{9y}{3y}$$

$$\boxed{3y(5y + 3)}$$

$$10. \frac{60x^2y}{12x^2} + \frac{24x^2}{12x^2}$$

$$\boxed{12x^2(5y + 2)}$$

$$11. \frac{2a^2b^2}{2a^2} + \frac{8a^2}{2a^2}$$

$$\boxed{2a^2(b^2 + 4)}$$

$$2\left(\frac{30x^2y}{6} + \frac{12x^2}{6}\right)$$

$$2 \cdot 6(5x^2y + 2x^2)$$

$$12x^2(5y + 2)$$

$$\textcircled{5} \quad \frac{81x^2}{27x} \quad \frac{-27x}{27x} \quad \text{GCF} = 3 \cdot 3 \cdot 3x = 27x$$

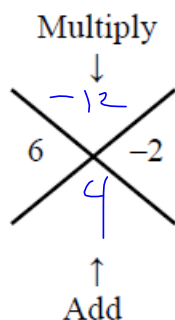
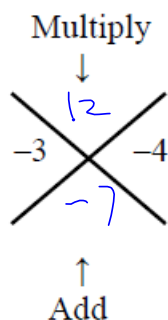
$$3 \cdot \underline{3 \cdot 3 \cdot 3} \cdot x^2 \quad \underline{3 \cdot 3 \cdot 3}x$$

$$= 27x (3x - 1)$$

Page 13

"Diamond" or "Magic x" Problems

"Magic x" problems are simply tools to help you find the PRODUCT and SUM of two numbers. They can also be helpful with thinking BACKWARDS when you learn to factor later this year.

Example 1:

✓ Understanding Check

$$\begin{array}{ccc} & -30 & \\ -10 & \times & 3 \\ & -7 & \end{array}$$

$$\begin{array}{ccc} & 16 & \\ -2 & \times & -8 \\ & -10 & \end{array}$$

$$\begin{array}{ccc} & -15 & \\ 5 & \times & -3 \\ & 2 & \end{array}$$

$$\begin{array}{ccc} & -77 & \\ 7 & \times & -11 \\ & -4 & \end{array}$$

$$\begin{array}{ccc} & 40 & \\ -5 & \times & -8 \\ & -13 & \end{array}$$

$$\begin{array}{ccc} & -7 & \\ 1 & \times & -7 \\ & -6 & \end{array}$$

$$\begin{array}{ccc} & -36 & \\ -4 & \times & 9 \\ & 5 & \end{array}$$

$$\begin{array}{ccc} & 24 & \\ -6 & \times & -4 \\ & -10 & \end{array}$$

$$\begin{array}{ccc} & -70 & \\ -10 & \times & 7 \\ & -3 & \end{array}$$

$$\begin{array}{ccc} & -10 & \\ 5 & \times & -2 \\ & 3 & \end{array}$$

$$\begin{array}{ccc} & 18 & \\ -3 & \times & -6 \\ & -9 & \end{array}$$

$$\begin{array}{ccc} & -14 & \\ 2 & \times & -7 \\ & -5 & \end{array}$$

√ Understanding Check

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HW Page 80

Factoring Simple Trinomials with x^2

Name _____

Date _____ Per _____

$$\begin{array}{c} 5 \\ -1 \quad -5 \\ -6 \end{array}$$

1. $x^2 - 6x + 5$

$$= (x-1)(x-5)$$



11. $x^2 - 20x + 75$

$$\begin{array}{c} 12 \\ -6 \quad -2 \\ -8 \end{array}$$

2. $x^2 - 8x + 12$



12. $x^2 + 5x - 24$

$$\begin{array}{c} -45 \\ -9 \quad 5 \\ -4 \end{array}$$

3. $x^2 - 4x - 45$



13. $x^2 - 6x + 8$

$$\begin{array}{c} -99 \\ 11 \quad -9 \\ 2 \end{array}$$

4. $x^2 + 2x - 99$



14. $x^2 + 14x + 40$

$$\begin{array}{c} 21 \\ 3 \quad 7 \\ 10 \end{array}$$

5. $x^2 + 10x + 21$



15. $x^2 - 4x - 77$

HW Page (back of handout)