

Name: \_\_\_\_\_ Date: \_\_\_\_\_ Period: \_\_\_\_\_

**Factoring Trinomials**

$$ax^2 + bx + c \quad (a = 1)$$

1. \_\_\_\_\_ the expression.
2. Draw \_\_\_\_\_ and \_\_\_\_\_ "X"
3. Put the \_\_\_\_\_ at the top and \_\_\_\_\_ \* \_\_\_\_\_ at the bottom.
4. Find two factors that \_\_\_\_\_ to the top number and \_\_\_\_\_ to the bottom number.

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

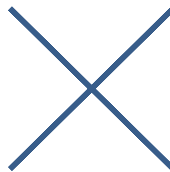


a) What are the factors of 6?

b) Add each pair of factors together.

Which factors have a sum of 7?

2.  $a^2 + 9a + 14$



3.  $m^2 - 9m + 20$



4.  $p^2 - p - 30$



5.  $x^2 + 4x - 12$



6.  $2x^2 + 22x - 24$



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1.  $w^2 + 14w + 48$

2.  $d^2 - 8d + 7$

3.  $k^2 - 4k - 60$

4.  $r^2 + r - 20$

5.  $3x^2 + 21x + 30$

6.  $3b^2 - 3b - 36$

7.  $2z^2 + 14z + 24$

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

**Challenge!**a. Factor:  $-40x^2 + 560x - 1800$