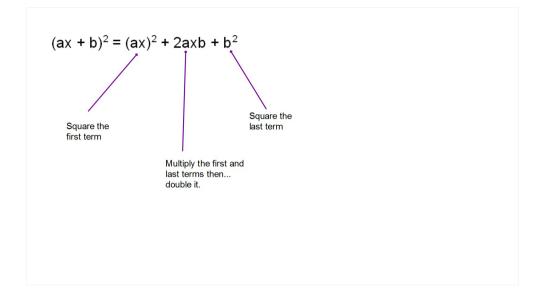
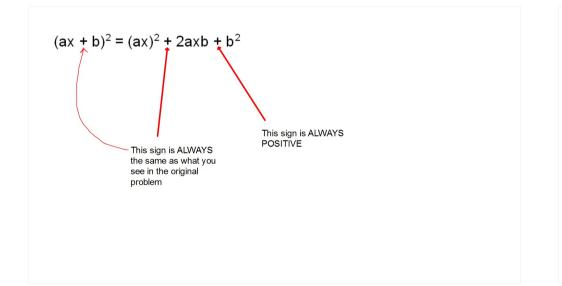
Expand each.

3.
$$(m-9)^2 = (m-9)^2 = ($$

4.
$$(6R + 5)^2$$

$$\begin{array}{c}
(6R + 5)^2 \\
+5 \\
+30R \\
+25
\end{array}$$





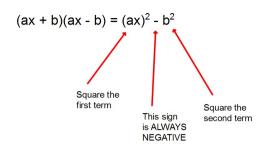
Expand each.

5.
$$(c + 7)(c - 7)$$

$$69^2 - 25$$

middle terms will cancel

Product of Opposite Factors:



Expanding

removing parentheses by using the ...

Distributive Property

It involves Multiplication

Factoring

the inverse of expanding ... putting parentheses back into the problem.

It involves Division.

Factor each.

The first step when factoring should always be to took for GCF (sometimes that is all you can do!)

1.
$$\frac{8x^2 - 24x}{8x}$$

$$9a^2 + 30a$$



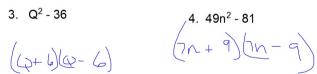
Factor each.

These are the results of multiplying

Opposite Factors

Also known as:

Difference of Perfect Squares



Factoring Difference of Perfect Squares

$$a^2 - b^2 = (a + b)(a - b)$$

Sum of Perfect Squares

$$a^2 + b^2 =$$
 The only thing you do is factor out a GCF, if there is one.

Factor completely

$$5\left(\sqrt{2-16}\right)$$

$$\frac{5\left(w^{2}-1\right)}{5\left(w+3\left(w-4\right)}$$

$$3(4x^{2}-9)$$
 $3(2x+3)(2x-3)$

Steps when factoring:

- 1. Take out GCF.
- 2. Look for the Difference of Perfect Squares if there are only two terms.
- 3. If there are three terms