## Find each product.

1. 
$$(b + 9)^2$$
 2.  $(g - 7)^2$ 

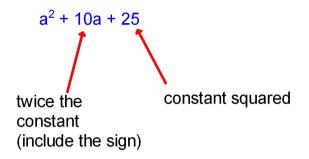
2. 
$$(g - 7)^2$$

Take a white board.

1. Expand 
$$(N + 10)^2$$

2. Expand 
$$(R - 8)^2$$

 $(a + 5)^2$  When coefficient of the variable is 1:



Why will the sign on the constant in the trinomial always be POSITIVE?

Expand.

$$(2a + 5)^2$$

In general: 
$$(ax + b)^2$$

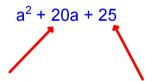
$$(ax)^2 + 2ab + b^2$$

In general: 
$$(ax - b)^2$$

$$(ax)^2 - 2ab + b^2$$

$$(2a + 5)^2$$

When coefficient of the variable isn't 1:



twice the product of the coefficient and the constant

constant squared

## Expand each.

$$(e + 7f)^2$$

$$(2c^3 - 5d)^2$$

Expand each.

1. 
$$(m + 6)(m - 6)$$

2. 
$$(Q - 7)(Q + 7)$$

3. 
$$(2K - 5)(2K + 5)$$

Take a white board.

$$(c + 3)(c - 3) =$$
  $(w + 17)(w - 17)$   
=  $(-2)^{2}$  =  $(-2)^{2}$  =  $(-2)^{2}$ 

$$(10a) - (9)(10a + 9) = (10a)^{3} - (9)^{3}$$

$$= (00a)^{3} - (9)^{3}$$

When expanding factors that look like this: (a + b)(a - b)Conjugates

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

Why is the sign always a minus?

because you are always mutliplying a pos with a neg

Use a white board

$$(13m - 2n)(13m + 2n) = (13m)^{2} - (2n)^{2}$$
$$= (69m^{2} - 4n)^{2}$$

$$(4k^{3} - 7j^{2})(4k^{3} + 7j^{2}) = (4k^{3})^{2} - (7j^{2})^{2}$$

$$= (6k^{6} - 49j^{4})$$

Hwk #28 Sec 9-4

Pages 477-478

Problems 2, 3, 6, 18-20, 38, 49