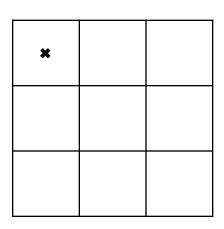
## 7.2: Negative Constant Terms Page 205 of your Purple Textbook - Algebra 1

1. These expressions are like the ones we have seen before.

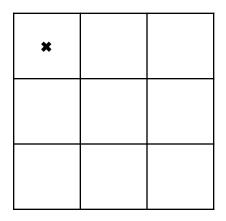
factored form	standard form
(x+5)(x+6)	
	$x^2 + 13x + 30$
(x-3)(x-6)	
	$x^2 - 11x + 18$

Each row has a pair of equivalent expressions.

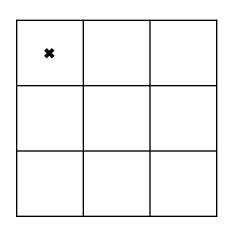
Complete the table. If you get stuck, consider drawing a diagram.



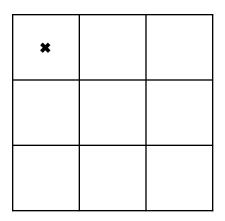
$$(x + 5)(x + 6) =$$



$$(x-3)(x-6)=$$



$$=x^2 + 13x + 30$$



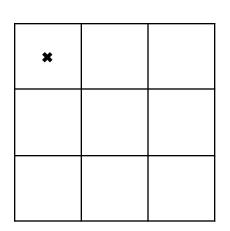
$$=x^2 - 11x + 18$$

2. These expressions are in some ways unlike the ones we have seen before.

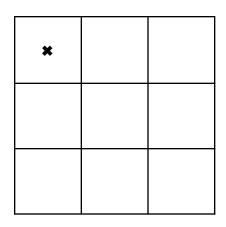
factored form	standard form
(x+12)(x-3)	
	$x^2 - 9x - 36$
	$x^2 - 35x - 36$
	$x^2 + 35x - 36$

Each row has a pair of equivalent expressions.

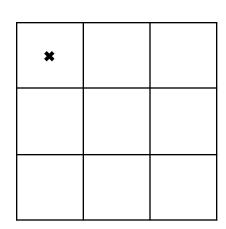
Complete the table. If you get stuck, consider drawing a diagram.



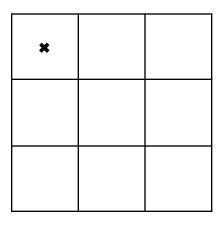
$$(x + 12)(x - 3) =$$



$$=x^2-35x-36$$



$$=x^2 - 9x - 36$$



$$=x^2 + 35x - 36$$

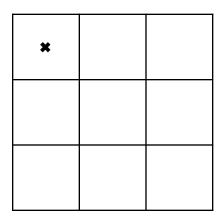
3. Write each expression in factored form:

a. 
$$x^2 - 25x + 100$$

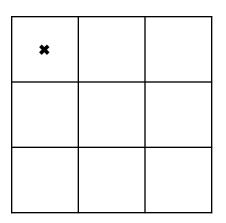
b. 
$$x^2 + 15x - 100$$

c. 
$$x^2 - 15x - 100$$

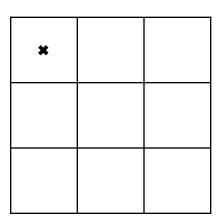
d. 
$$x^2 + 99x - 100$$



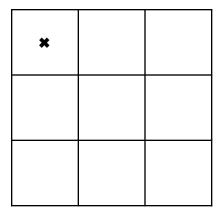
$$=x^2 - 25x + 100$$



$$=x^2 - 15x - 100$$



$$=x^2 + 15x - 100$$



$$=x^2 + 99x - 100$$

## Lesson 7: Rewriting Quadratic Expressions in Factored Form (Part 2)

## **Cool Down: The Missing Symbols**

Here are pairs of equivalent expressions in standard form and factored form. Find the missing symbols and numbers.

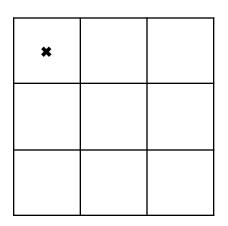
1. 
$$x^2$$
 16 $x$  17 and  $(x + 1)(x - 17)$ 

2. 
$$x^2 \square 16x \square 17$$
 and  $(x - 1)(x + 17)$ 

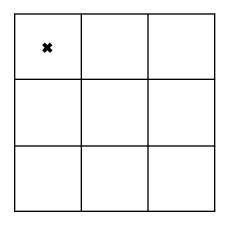
3. 
$$x^2 + 3x - 28$$
 and  $(x + )(x - )$ 

4. 
$$x^2 - 12x - 28$$
 and  $(x ) (x )$ 

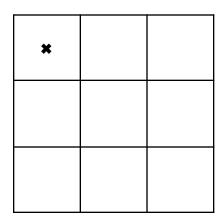
If you get stuck, consider drawing a diagram.



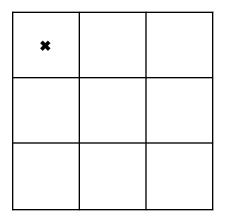
$$(x + 1)(x - 17) =$$



$$(x-1)(x+17)=$$
\_\_\_\_\_



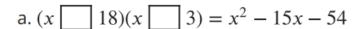
$$=x^2 + 3x - 28$$



$$=x^2 - 12x - 28$$

## Lesson 7 Practice Problems Page 209 of your Purple Textbook - Algebra 1

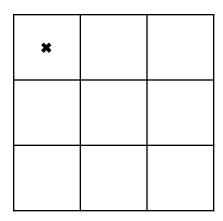
3. Write a + or a - sign in each box so the expressions on each side of the equal sign are equivalent.



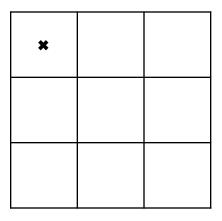
b. 
$$(x \square 18)(x \square 3) = x^2 + 21x + 54$$

c. 
$$(x \square 18)(x \square 3) = x^2 + 15x - 54$$

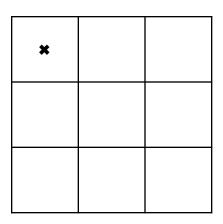
d. 
$$(x \square 18)(x \square 3) = x^2 - 21x + 54$$



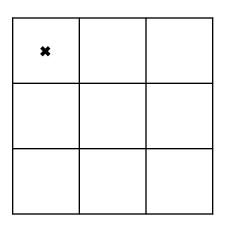
$$=x^2 - 15x - 54$$



$$=x^2 + 15x - 54$$



$$=x^2 + 21x + 54$$



$$=x^2 - 21x + 54$$

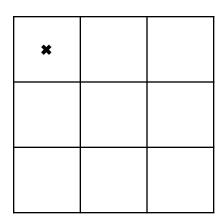
5. Rewrite each expression in factored form. If you get stuck, try drawing a diagram.

a. 
$$x^2 - 3x - 28$$

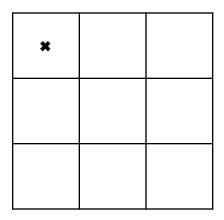
b. 
$$x^2 + 3x - 28$$

c. 
$$x^2 + 12x - 28$$

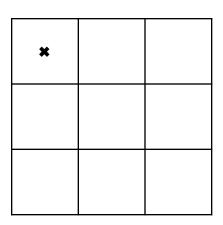
d. 
$$x^2 - 28x - 60$$



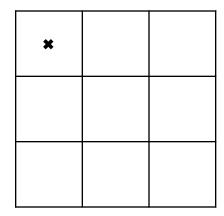
$$=x^2 - 3x - 28$$



$$=x^2 + 12x - 28$$



$$=x^2 + 3x - 28$$



$$=x^2 - 28x - 60$$