

7.2: Negative Constant Terms

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.

×		

$$(x + 5)(x + 6) = \underline{\hspace{2cm}}$$

×		

$$\underline{\hspace{2cm}} = x^2 + 13x + 30$$

×		

$$(x - 3)(x - 6) = \underline{\hspace{2cm}}$$

×		

$$\underline{\hspace{2cm}} = x^2 - 11x + 18$$

7.2: Negative Constant Terms

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.

×		

$$(x + 12)(x - 3) = \underline{\hspace{2cm}}$$

×		

$$\underline{\hspace{2cm}} = x^2 - 9x - 36$$

×		

$$\underline{\hspace{2cm}} = x^2 - 35x - 36$$

×		

$$\underline{\hspace{2cm}} = x^2 + 35x - 36$$

7.3: Lesson Activities, Cool-Down and #3 & #5 Practice Problems

7.3: Factors of 100 and -100

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

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

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

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

If you get stuck, consider drawing a diagram.

×		

$(x + 1)(x - 17) = \underline{\hspace{2cm}}$

×		

$\underline{\hspace{2cm}} = x^2 + 3x - 28$

×		

$(x - 1)(x + 17) = \underline{\hspace{2cm}}$

×		

$\underline{\hspace{2cm}} = x^2 - 12x - 28$

7.3: Lesson Activities, Cool-Down and #3 & #5 Practice Problems

Lesson 7 Practice Problems

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

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

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

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

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

×		

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

×		

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

×		

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

×		

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

Lesson 7 Practice Problems

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. $x^2 - 28x - 60$

×		

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

×		

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

×		

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

×		

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