

## Warmup

1. Simplify:  $(15)^2$

2. Simplify:  $-16+t^2$  when  $t=4$

3.  $-4 + -6 =$  \_\_\_\_\_

$$9 + -4 = \underline{\hspace{2cm}}$$

$$-32 + -9 = \underline{\hspace{2cm}}$$

$$-18 + 100 = \underline{\hspace{2cm}}$$

- I. Simplifying Exponents with Signed Numbers
- II. Signed Numbers in Expressions with Exponents
- III. Signed Numbers in Algebraic Expressions with Exponents

*Homeschool*



*Honor Roll*

*Learn ~ Persevere ~ Succeed*

Pre-Algebra and Geometry I

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## I. Simplifying Exponents with Signed Numbers

base<sup>exponent</sup>

$$(-9)^2$$

$$-(9)^2$$

$$-9^2$$

$$6^2$$

$$(-12)^2$$

$$-14^2$$

$$-(13)^2$$

$$-(11)^2$$

$$-16^2$$

$$-(-12)^2$$

$$14^2$$

4. Simplify:  $(-8)^2$

5. Simplify:  $-15^2$

6. Simplify:  $-(7)^2$

## II. Signed Numbers in Expressions with Exponents

base<sup>exponent</sup>

$$4 + (-9)^2$$

$$4 - (9)^2$$

$$4 - 9^2$$

8. Simplify:  $(-4)^2 + 16$

9. Simplify:  $-20+12^2$

**10.** Simplify:  $-(5)^2-20$

### III. Signed Numbers in Algebraic Expressions with Exponents

Simplify  $(-a)^2 - b$  when  $a=4$  and  $b = 8$

Parentheses

Exponents

Multiplication or Division

Addition or Subtraction

**12.** Simplify  $t^2$  when  $t=-10$

**13.** Simplify:  $-x^2 + y$  when  $x=-13$  and  $y=-31$

[illegible]