

Unit 2: Powers and Exponents

Chapter 3: Pg 88-127

Vocabulary

Power-An expression made up of a base and an exponent. For example, for the power 6^3 , 6 is the base and 3 is the exponent.

Exponent- The number of times you multiply the base in a power by itself. For example, in 2^3 , 3 is the exponent so the base is multiplied by itself three times: $2 \times 2 \times 2 = 8$

Coefficient- A number that multiplies the variable. In $3n-2$, the numerical coefficient is 3.

Base- The number used as a factor for repeated multiplication. In 4^6 , the base is 4.

Exponential Form-A shorter way of writing repeated multiplication, using a base and an exponent. For example $5 \times 5 \times 5$ (called expanded form) in exponential form is 5^3 .

Checklist

- I understand the difference between the base and exponent of a power.
- I can express expanded form of numbers as exponential form
- I can evaluate powers with positive bases
- I can evaluate powers with negative bases.
- I understand the 5 exponent laws
 1. Product of powers
 2. Quotient of powers
 3. Power of a power
 4. Power of a product
 5. Power of a quotient
 6. Zero exponent
- I can use the exponent laws to evaluate expressions.
- I can use order of operations to determine the product of a power
- I can use exponents to solve situational questions.