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Homeschool



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Pre-Algebra and Geometry I

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I. Definitions

$$4 + 4 + 4 + 4 + 4 =$$

The center dot
indicates

_____.

The _____ tells
how many times the
_____ is used as a
factor.

$$4 \cdot 4 \cdot 4 \cdot 4 \cdot 4 = \underline{\hspace{1cm}} = \underline{\hspace{1cm}}$$

Common
factors

The _____ is the
common factor.

Numbers expressed using exponents are called _____.

Symbols	Words
5^2	five to the second power or five squared
4^3	four to the third power or four cubed
3^4	Three to the fourth power

II. Write Powers As A Product Of The Same Factor.

$$3^5$$

To write powers as a product of the same factor:

$$2^6$$

$$15^2$$

$$4. \quad 3^3$$

$$5. \quad 6^4$$

III. Write Powers in Standard Form

Evaluate each expression

$$2^6$$

$$15^2$$

To evaluate **exponential expressions**

8. 3^3

9. 6^4

Standard Form:

Exponential Form:

$$4^1 =$$

When a number does not have an exponent, it is understood to be 1.

IV. Write Numbers In Exponential Form

$$(3)(3)(3)(3) =$$

$$2 \cdot 2 \cdot 2 \cdot 2 \cdot 2 \cdot 2 =$$

10. $6 \cdot 6 \cdot 6 =$

11. $(9)(9)(9)(9) =$

V. Evaluate algebraic expressions with exponents

Evaluate each algebraic expression when $a = 4$, $b=2$, and $c=3$

$$a^2$$

$$b^c$$

$$12. \quad b^a$$

$$13. \quad a^b$$