

Go-Math Lesson 1-4



Algebra – Powers of 10 and Exponents

$$4^3 = 4 \cdot 4 \cdot 4$$

base

exponent

3 times

Expressions with repeating factors can be written by using a base number with an **exponent**.

The **base number** is the factor that repeats in multiplication.

The **exponent** is the number that tells how many times the base number will repeat in multiplication.

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Practice: Find the Value

$$10^2 = 10 \times 10 = 100$$

$$10^3 = 10 \times 10 \times 10 = 1,000$$

$$10^4 = 10 \times 10 \times 10 \times 10 = 10,000$$

$$4^3 = 4 \cdot 4 \cdot 4$$

base

exponent

3 times

Do you see a pattern?



$$4 \times 10^2 = 4 \times (10 \times 10) = 400$$

$$7 \times 10^3 = 7 \times (10 \times 10 \times 10) = 7,000$$

$$12 \times 10^4 = 12 \times (10 \times 10 \times 10 \times 10) = 120,000$$

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How to Say Exponents:

$10^2 =$ 10 to the 2nd power *or 10 squared*

$10^3 =$ 10 to the 3rd power *or 10 cubed*

$10^4 =$ 10 to the 4th power

$10^5 =$ 10 to the 5th power

You need to
know how to
say
exponents
too!



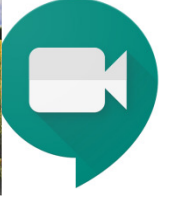
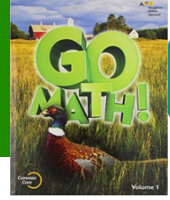
A few tricky ones.....

$10^1 =$ We do not say 10 to the first power, it is just 10

$10^0 =$ We do not say 10 to the zero power, it is just 1

Any number to the power of zero is 1.

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Your tasks:

1. Complete Google Classroom **Lesson 1.4 Check-in**
2. Complete Think Central assignments by the day
3. Watch videos posted on the website
4. Complete IXL Skills for the week

You have a lot to do – Don't waste time!