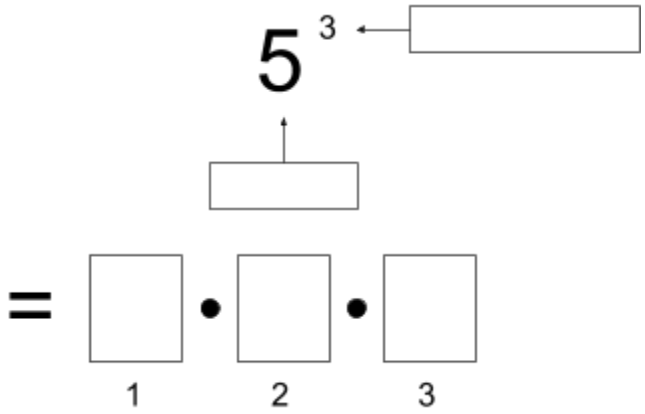
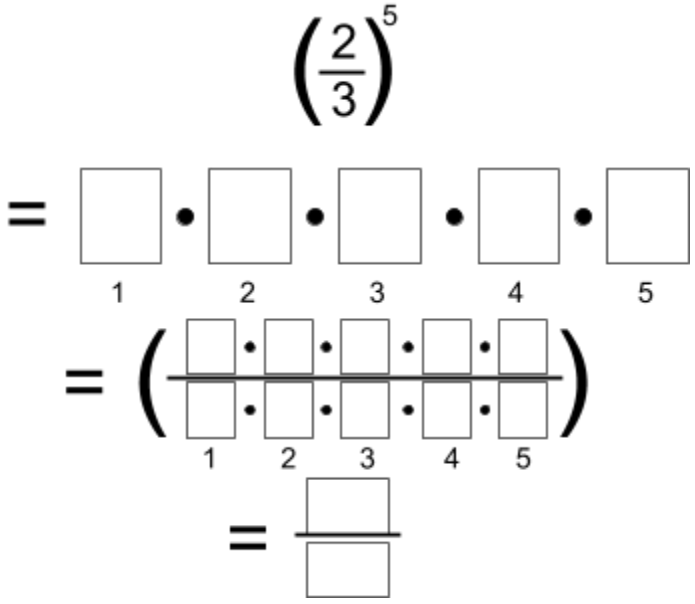
Algebra 1A
Unit 1: Foundations of Algebra
Assignment 3: Exponents and Order of Operations

EXPONENTS AND ORDER OF OPERATIONS

Word	My own description	Illustration/Example
Base		
Exponent		





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ORDER OF OPERATIONS

PEMDAS: You have to solve problems in this order. If the step isn't part of the problem, skip it.

- **P**arentheses (the INSIDE of them)
- **E**xponents
- **M**ultiplication and **D**ivision
- **A**ddition and **S**ubtraction

When you are calculating the parts of one step, always go from left to right. But make sure you don't mix up the order of the steps!

Examples:

$6 \cdot 2 \div 3 + 8 \cdot 4 \div 2$	$2 \cdot 5^2$
$120 - 5^2(8 - 6)$	$\frac{5^2 - 4}{3 + 4}$ (remember that a fraction also means to divide!)

Parentheses: Always complete everything on the inside first, using the order of operations!

$8(2 + 2^2) \div 16$

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Groups inside groups: Always work from the inside out. If there are multiple groups, do them in this order:

- Parentheses ()
- Brackets [ ]
- Braces { }

$3[19 - (20 - 10 \div 2)]$