Pre-Algebra

Chapter 1

Variables, Expressions and Integers

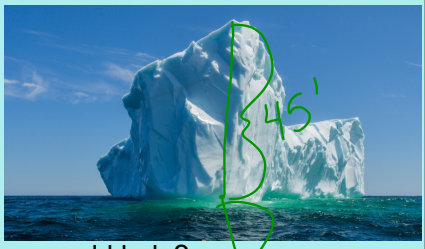
Chapter 1 topics:

- -evaluating and writing variable expressions
- -order of operations
- -ordering integers
- -operations with integers
- -finding points in a coordinate plane

How tall is this iceberg?

Guesses:

30'
100'
8'
200'



What information would help?

The highest point is 45 feet above the water and the lowest point is 357 feet below the water.

Pre-Chapter Prerequisite Skills

pg. 4 in your book

-do #1-6, and #8

Section 1.1

Expressions and Variables

Goal: to evaluate and write variable expressions.

If one hat costs $5, what expression could we write to show the cost of:

1 hat? 1(5)

2 hats? 2(5)

4 hats? 4(5)

h hats? 5h

-Why is *h* a good variable to use, instead of *x*?

A numerical expression consists of numbers and ~~expressions~~ operations.

Ex- 5(4) or (5+10-3)

What is a variable? What is a variable expression?

(letter that represents a quantity)

Combination of knowns + unknowns with operations

In our example with the cost of hats, how much would 20 hats cost? How do you know?

5h

20 5 = $100

Evaluating expressions: plug in numbers for the variables.

if x = 13 and y = 5, evaluate the following expressions:

x - y = 13 − 5 = 8

4y + 2 4 · 5 + 2 = 22

20 - x 20 − 13 = 7

What words would mean the following operations?

+	−
addition, sum, increased by, plus	Subtract, minus, difference, decrease, take away
x	÷
multiply, times, product of	quotient, divide

You plan to bring cookies to class tomorrow to share with your friends. What expression would show how many cookies you would need for a class size of *c*?

Bring in 2 cookies for each → 2c

5 → 5c

c + h → ours + Mrs. Wiese's

You ended up with 45 cookies and you brought all of them to school. What expression would show how many cookies each of your friends would get if you have *f* friends?

~~45 f~~

$\frac{45}{f}$

Hwk: pg 7 - 9

#18, 24 - 27, 32 - 38, 40,

52, 66 and 67