

Warmup $8/(2^3 + 1^3)$

*****Have your homework out so Mr. Lischwe can collect it.*****

- 1.** Get your giant task paper from yesterday. Finish up part 2 on the back and tell Mr. Lischwe your estimate for how many cups it would take for the stacks to be the same height.

How many cups?

Names	Guess
Nicolas & Helen	
Mia & Drake	
Zyann & Tyler	
Araceli & Ryan	
Abhi & A'yana	
Matt & Carlos	
Zilah & Lexi	
Jack & Bryan	
Jason & Emma	
Isabelle, Rachael, Jenaleyse	

Discussion: Stacking Cups Part 2



JOBS (2nd)

Paper Returners: Emma & Mia

Homework Collector: Matt

NEED:

- **Folder Alphabetizer**
- **Homework Writer**
- **2 Paper Passer-Outers**

Special Schedule Writer: I had SIX PEOPLE sign up for this one. Any of you six (or anyone else?) want to volunteer for the above "Need" jobs???

Setting up our binder!!!

Set up the first page like this:

Table of Contents	
Simplifying & Interpreting Expressions	p.1

Guided notes: Expressions

Please stay with us and do not work ahead!!!

TODAY'S OBJECTIVE: Be able to simplify expressions as well as interpret them in a real-world context

Practice: Operations w/ Integers

Try to evaluate these numerical expressions on your own.

1. $-10 + 8$ -2

2. $\underbrace{-10 + 20}_{10} - 4$ 6

3. $-60 + (+35)$ -25

4. $\frac{-10}{5} - \frac{-30}{-5}$
 $-2 - +6$ -8

5. $\underbrace{-9 \cdot -4}_{+36} + 7 - \underbrace{9 \cdot 8}_{72}$ -29

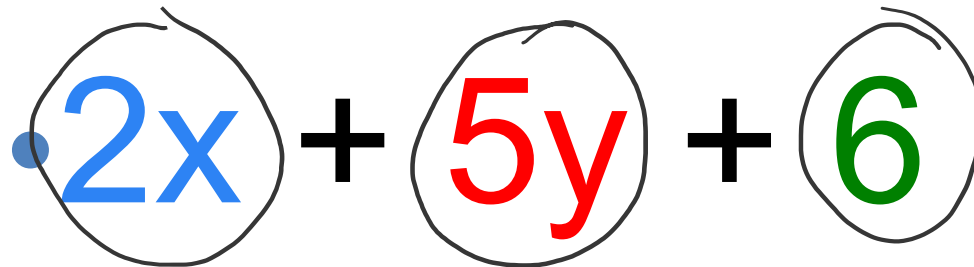
EXPRESSIONS VS EQUATIONS

What is the difference?

- Equations contain equal signs; expressions do not!
- Expressions are mathematical phrases
- Equations are mathematical sentences.

What are Terms?

- the different parts of the expression- can be a single number or variable



The diagram shows the algebraic expression $2x + 5y + 6$. Each part of the expression is enclosed in a hand-drawn circle to represent a term. The term $2x$ is written in blue, $5y$ is written in red, and the constant 6 is written in green. A small blue dot is positioned to the left of the first circle.

$$2x + 5y + 6$$

What are Constants?

- Fixed quantities that don't change

$$\bullet 2x + 5y + 6$$

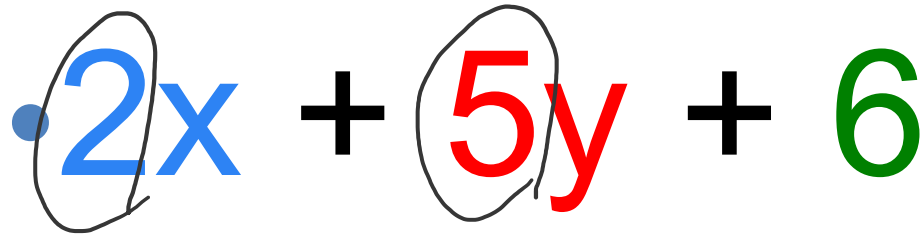
What is a Variable?

- a symbol for a number we don't know yet. It is usually a letter like x or y .

$$\bullet 2x + 5y + 6$$

What is a coefficient?

- a number that is multiplied by a variable

$$2x + 5y + 6$$


What are Like Terms

Same variables raised to the same power

Like Terms	Unlike Terms
$2x + 19x$	$2x + 19a$
$4w - 10w$	$4w - 10w^2$
$14.2r - 12r$	$12r - 12s$
$32a^2 + 9a^2$	$32a^2 + 9a^3$
$8y + 5y$	$8y + 5$

Simplify the Expression

$$-5x + 2y + (+6y) + 2$$

$$-5x + 8y + 2$$

Simplify the Expression

$$9x - 4y + 2$$

Already simplified

Simplify the Expression

$$3x + 2 + (+10x) - 10$$

$$13x - 8$$

Simplify The Expression

$$7x - 12x - 8 - 8 + 18x + 7$$

(Handwritten annotations: 7x, -12x, +18x, and +7 are circled. Brackets under the two -8 terms are connected by a line with -16 written below it.)

$$13x - 9$$

(Handwritten annotation: The final simplified expression 13x - 9 is circled.)

Simplify the Expression

$$\underline{18x} - 20y + (-5y) - 10y + (\underline{+12x})$$

$$30x - 35y$$

Write as an expression:

- **Friday's temperature was 20 degrees warmer than Monday's temperature t . Write an expression for Friday's temperature.**

$$t + 20$$

Write as an expression:

- Truman sleeps 8 hours per night, Write an expression for the number of hours Truman sleeps in n nights.

8n

Write as an expression:

- **Mr. Allen is paid for overtime when he works more than 40 hours per week. Write an expression for the number of hours he works overtime when he works h hours.**

$$h - 40$$

Write as an expression:

- **Sunny earns \$12 per hour delivering cakes. She worked for x hours this week. Unfortunately, she was charged \$15 for a late delivery on Tuesday. How much money did Sunny earn this week?**

Write as an expression:

- **Brady had \$250. Then he and his classmates bought a present for their teacher, evenly splitting the cost among the 24 of them. How much money does Brady have left? Write your answer as an expression.**