

# Sorting Symbol Strings

Name \_\_\_\_\_

## Activity Recording Sheet

1. What are the differences between Equations, Inequalities and Expressions? Write as much as you can to explain what you know about how they are different.

Equations  
~~equal~~ sign

Inequalities  
have greater than  
or less than sign

Expressions  
No sign

2. Describe the subcategories you noticed within each group. What is alike about all the symbol strings that fit in a particular subcategory? Make sure to list all symbol strings that fit in each subcategory.

The subgroups vary from finding properties,  
solving for a variable,  $V(W+X) = VW+VX$

$$\frac{y=?}{105+2a=101}$$

$$3+24=9$$

$$40+5x$$

$$\frac{a+(b+c)=(a+b)+c}{f \cdot 1 = f}$$

$$f \cdot 1 = f$$

$$x+y=y+x$$

and we also had 1 in the middle.

3. With your group, make up at least 6 new symbol strings that fit within the subcategories. List them here **AND** write each one on the front of an index card with a description of the subcategory on the back of the index card.

Property equation

$$x + z = z + x$$

solving for unknown

$$a = 13$$

$$z = 9$$

Combining like terms

$$2y + 3y = 5y$$

ALW

$$W \cdot L = A$$

$$O \cdot L = L$$

I learned that big groups of numbers can be broken into smaller groups. I know it cause then I didn't know I do. I feel good. It was fun!



Name \_\_\_\_\_

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## Activity Recording Sheet

1. What are the differences between Equations, Inequalities and Expressions? Write as much as you can to explain what you know about how they are different.

Equations - They <sup>have</sup> a equal sign

Inequalities - have a least or greater sign

Expression - they don't have a equal sign

UNO

2. Describe the subcategories you noticed within each group. What is alike about all the symbol strings that fit in a particular subcategory? Make sure to list all symbol strings that fit in each subcategory.

|                     |
|---------------------|
| $V(w+x) = Vw + Vx$  |
| $a+(b+c) = (a+b)+c$ |
| $F = F$             |
| $X+Y = Y+X$         |

- you don't know what number does each variable stand for

$3x+2x = 5x$  - combine like terms

$A = L \cdot W$  - so yeah we don't know

SOLVING FOR THE UNKNOWN



3. With your group, make up at least 6 new symbol strings that fit within the subcategories. List them here **AND** write each one on the front of an index card with a description of the subcategory on the back of the index card.

Property Equations

$$X + Z = Z + X$$
$$D + C = C + D$$

Solving for the Unknown

$$A = 13$$
$$17 - 2x = 13$$

Combining like Terms

$$12y + 11y = 23y$$

$$\frac{A}{W} = A$$
$$\frac{Z}{Z} = B$$
$$O + C = L$$

I learned about "SOLVING FOR THE UNKNOWN"

I know a little about it, BECAUSE I DO. AND  
CAUSE I DIDN'T THAT MUCH ABOUT IT.  
IDONT HAVE NOTHING

# Sorting Symbol Strings

Name

## Activity Recording Sheet

1. What are the differences between Equations, Inequalities and Expressions? Write as much as you can to explain what you know about how they are different.

equations have = sign, inequalities have <, >, ≤, ≥ signs, expressions are just a group of #'s with operations

2. Describe the subcategories you noticed within each group. What is alike about all the symbol strings that fit in a particular subcategory? Make sure to list all symbol strings that fit in each subcategory.

~~Ex~~ one of the groups you can find the properties -  
 $V(W+X) = VW + VX$      $a+(b+c) = (a+b)+c$      $F \cdot 1 = F$      $x+y = y+x$

combining like terms -  $3x + 2x = 5x$

Solving for the unknown -  $y = 2$ ,  $105 + 2a = 101$ ,  $3 + 2n = 8$   
 $40 = 5x$

3. With your group, make up at least 6 new symbol strings that fit within the subcategories. List them here **AND** write each one on the front of an index card with a description of the subcategory on the back of the index card.

Properties

$$13 \cdot a = 13$$

$$x + z = z + x$$

Combining like terms

$$2y + 11y = 13y$$

Solving for the unknown

$$17 - 2x = 13$$

AIW

I learned about the different groups inside of equations, inequalities, and expressions.

Because I didn't know it before.

It was just like any other lesson only we moved around more.

# Sorting Symbol Strings

Name \_\_\_\_\_

## Activity Recording Sheet

1. What are the differences between Equations, Inequalities and Expressions? Write as much as you can to explain what you know about how they are different.

Equations - Has an equal sign between 2 values.

Inequalities - Has a  $<$ ,  $>$ ,  $\leq$ ,  $\geq$  between 2 values.

Expressions - Doesn't have an equal sign or  $<$ ,  $\leq$ ,  $>$ ,  $\geq$ , or is essentially any number of numbers with at least one operation.

2. Describe the subcategories you noticed within each group. What is alike about all the symbol strings that fit in a particular subcategory? Make sure to list all symbol strings that fit in each subcategory.

Properties - In each symbol string you could solve for the diff. property used.

$$\underline{V(W+X) = VW + VX}$$

$$\underline{a+(b+c) = (a+b)+c}$$

$$\underline{F \cdot 1 = F}$$

$$\underline{X+Y = Y+X}$$

Combining 'like' terms - you can combine sets of variables into the answer

$$\underline{3x + 2x = 5x}$$

Solving for the Unknown - In each you can solve for the given variable.

$$\underline{y = 2}$$

$$\underline{105 + 2a = 101}$$

$$\underline{3 + 2n = 8}$$

$$40 = 5x$$

Internet Faces  $= P = ' ) > < \therefore / > = ( O_0 = ( \hat{=} - \hat{=} ) = \times D$

3. With your group, make up at least 6 new symbol strings that fit within the subcategories. List them here **AND** write each one on the front of an index card with a description of the subcategory on the back of the index card.

|                   |                                |                             |
|-------------------|--------------------------------|-----------------------------|
| <u>Property</u>   | <u>Solving for the Unknown</u> | <u>Combining like terms</u> |
| $13 \cdot 1 = 13$ | $17 - 2x = 13$                 | $2y + 11y = 13y$            |
| $x + z = z + x$   |                                |                             |

ALW  
 $z + 0 = z$   
 $0 \cdot c = 0$

That, aside from the major groups of equations/expressions/inequalities - which differ due to the lack of signs or not - the diff. sub-groups within those are based on how to solve them.

I know because I can effectively use it while doing algebra.

I thought it was slightly abstract and I felt like it wasn't independent enough and there wasn't a lot of real, hands-on algebra.



Group 4

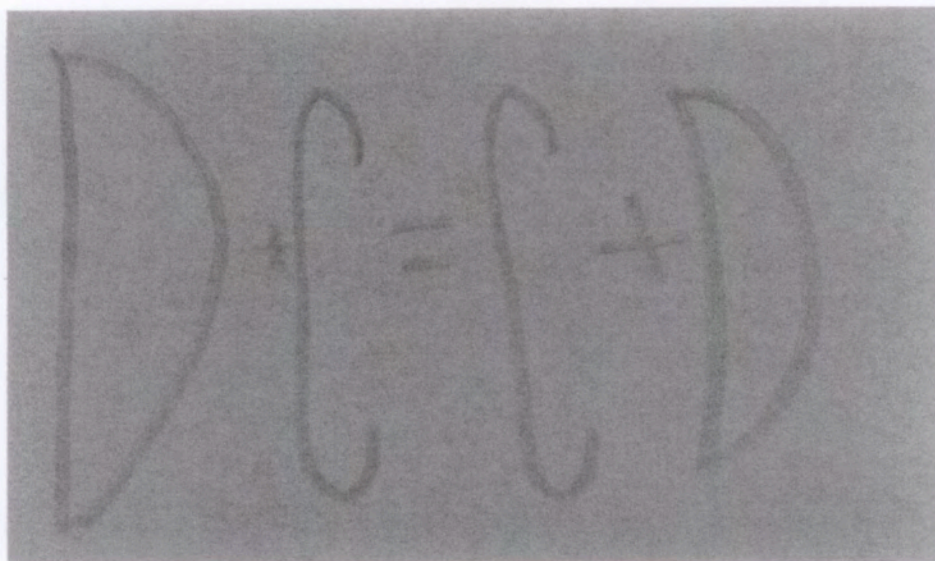
Student 4a

O.C.E.L

Answer question

Group 4

Student 4b



Distributive property because you don't  
know what the numbers are

Group 4  
Student 4c

$$2y + 11y = 13y$$

This combining like terms

Group 4  
Student 4d

$$17 - 2x = 13$$

This is solving for the  
unknown

Group 4

Student 4 e

$$Z + 0 = \ddot{E}$$

This part of the Unknown Variable problems because it has 3 different variables that have to be a certain value.

Group 4

Student 4f

$$X + Z = Z + X$$

This is part of the property group because it displays the commutative property.