# 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 are different because it has an equal sign and you can solve it. Expressions are different because it does not have and equal sign, but you can combine terms. And inequalites, it has the $>, <, =, \geq, \leq$ symbols and after you solve it, you have to test it on a number line.*

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.

   $5(x+2)$    $3b + 4p + 17$    $3x + 2y + 2x$ ← *This is different because you can combine numbers with the same variables.*

   $3x + 2y + 4z$    $4p + 3p - 2p$

   $\dfrac{m^2 \cdot my}{mb}$

   $3z - 2b + 4c - a$

   *This is different then the others because it has a property that the others do not have*

   *This is different because you can not combine numbers with variables because there are no like variables.*

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.

| Expression | Inequalities | Equations |
|---|---|---|
| $5x + 3c - 4x$ | $8c + 4, -c \geq 21$ | $36c + 10a \cdot 4 = 100$ |
| $15c + 5a + 4p$ | $3x + a > 12$ | $14 - 8 \times 2c = 48$ |

I know that equations, inequalities, and expressions are different because of symbols and one without.

I now know that there can also be different groups within groups for equations, inequalities, and expressions.

I know I learned it because I did not know about the differents groups there could be.

I feel smarter because I now know more stuff I did not know before.

$$x + y = y + x$$
$$a + (b+c) = (a+b) + c$$
$$v(w+x) = vw + vx$$

$$105 + 2a = 101$$
$$3 + 2n = 8$$
$$40 = 5x$$

$$A = L \cdot W$$
$$F \cdot 1 = F$$

$$Y = 2$$

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Name

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.

An equation has an equal sign

Inequalities are number comparison

Expressions can be turned to exponents

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.

Like terms

$3x + 2y + 2y = 7y$

$4p + 3p - 2p = 5p$

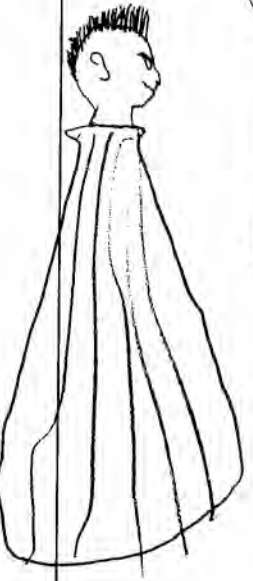$7p - 2p = 5p$

Distributive

$5(x+2) = 10x$

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.

I am WOST! Freeks! suns up uh izzat Nuttes.

$$50y + 10y + 11y = 71y$$

$$6y + 5y + 9y$$

$$5 < x + 2$$

$$7 \geq 4 + y$$

$$10 + 18b$$

$$10(8 \cdot y)$$

I learned to be patient, wel, extremely patient!
I learned it by waiting Patiently for the answer
I feel sick, tired, and sleepy.
I hated to be filmed!!! I signed
a slip not to be !!!/////
AND I STILL got filmed!

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## Activity Recording Sheet

Name _____

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. Equation has an equal sign which means that they have to eqaul something. Inequalities have ~~greater or equal~~ to sign and expressions has no equalsign means it express itself

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.

Becaus u can combine terms and

$$\left( \begin{array}{l} 3x+zy+2y \\ 4b+3 - 2b \\ \dfrac{m^2 \cdot m^4}{m^3} \\ 3a-2b+4c-a \end{array} \right)$$

$$\left( \begin{array}{l} 3b+4p+17 \\ 3x+zy+4z \end{array} \right)$$ -u can't combine terms and

5 (x+z) u would havez use distributive property.

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.

| expression | Inequalities | exquation |
|---|---|---|
| $35c+10^2$  $x4=100$ | $8c+4i-c7/2i$ | $5x+3c-4$ |
| $14.8 \times 2c = c18$ | $3y+2712$ | $15c+5xy/b$ |

I learn about different types of equations and different types of expression and inequalities.

Because I never new wat types of equation expression inequalities.

I feel ok because I learn something new!

$A = L \cdot W)$ only multiplication and equals.
$E \cdot L = F)$

# Sorting Symbol Strings
## Activity Recording Sheet

Name:

1/22/09

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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.

- I think that Equations have equal signs, and two or more numbers on the left side of the equal sighn. p's they have equal signs

- inequalities have symbols.($> < \geq \leq$.) So, they dont just have equal signs.

- Expressions have numbers to variables but no equal sign.

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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.

$\{ 3x+2y+4z \}$ These are a group because you cannot combine them.
$\{ 3b+4p+17 \}$ (unable to combine)

$\{ 5(x-2) \}$ this one can be combined with only the distributive property. (You can combine only 1 way.)

$\begin{cases} 3a-2b+4c-a \\ \dfrac{m^2 \cdot m^4}{m^3} \\ 4p+3p-2p \\ 3x+2y+2x \end{cases}$ These are grouped together because you can combine these to a smaller equation. (Combine like terms.)

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.

| expressions | inequalities | equations |
|---|---|---|
| $5_x + 3_c - 4_x$ | $8_c + 4i - c \geq 21$ | $35_c + 19_b \times 4 \geq 100$ |
| $15_c + 5_> + 4_p$ | $3_x + 2 > 12$ | $14 - 8 \times 2_c = 48$ |

I learned that you can put diff kinds of equations, inequalities, or expressions can be grouped into smaller groups.

I know because I won't remember doing it or thinking about it ever before.

I feel good that I learned something new.

$$\left\{ \begin{array}{l} F \cdot l = F \\ A = L \cdot W \end{array} \right\}$$ These have only $\wedge$ multiplication, with an equal sign.

$$\left\{ \begin{array}{l} 3 + 2n = 8 \\ 10t + 2a = 10 \end{array} \right\}$$ they have the same format.

$$\left\{ \begin{array}{l} a + (b+C) = (a+b)+C \\ x+4 = Y+Y \\ V(w+x) = vw + vx \end{array} \right\}$$ these are just variables.

$$\left\{ \begin{array}{l} 40 = 5x \\ 3x + 2x = 5x \end{array} \right\}$$ these have nothing in common with another graps.

$$14 - 8 \times 2c = 48$$

$$35c + 10a \times 4 =$$

$$100$$

$$3x + a > 12$$

Inequality

$$8c + 4i - c \geq 21$$

INEQUALITY

$$13c + 8n + 4p$$

This can be in the "can't be combined" group for expression

Group 3

Student 3f

$$5x + 3c - 4x$$

This fits in the "can be combined" group for expression.