


Name _____

Unit 6 Study Guide

<p>Words to Expressions</p> <table border="1"> <tr> <td data-bbox="224 436 500 709"> <p>add sum total all together plus</p> </td> <td data-bbox="500 436 792 709"> <p>subtract minus decrease difference take away</p> </td> </tr> <tr> <td data-bbox="224 709 500 982"> <p>times multiply product of pa.</p> </td> <td data-bbox="500 709 792 982"> <p>dividend divided by divisor quotient</p> </td> </tr> </table> <p><i>Handwritten notes:</i> addition increase more they plus multiplication product of pa. division dividend divided by divisor quotient</p>	<p>add sum total all together plus</p>	<p>subtract minus decrease difference take away</p>	<p>times multiply product of pa.</p>	<p>dividend divided by divisor quotient</p>	<p>3 less than twice a number</p> $2a - 3$ <p>5 more than a number divided by 3</p> $5 + Q \div 3$ $Q \div 3 + 5$ <p>a number times 5 add 7</p> $5n + 7$
<p>add sum total all together plus</p>	<p>subtract minus decrease difference take away</p>				
<p>times multiply product of pa.</p>	<p>dividend divided by divisor quotient</p>				
<p>Two Step Equations</p> <p>opposite operation</p> <p>opposite order</p>	<p>$5x - 7 = 13$</p> $5x = 13 + 7$ $5x = 20$ $x = 20 \div 5 = 4$ <p>$x/3 + 2 = 7$</p> $\frac{x}{3} = 7 - 2$ $\frac{x}{3} = 5.3 \quad x = 15$				
<p>Equation as a picture</p> <p>Study the diagram.</p> 	<p>How many spheres is one cone worth?</p> <p>2</p> <p>How many cones would equal 10 spheres?</p> <p>5</p>				

Handwritten notes:
 multiplication
product
of
pa.
 division
dividend
divided by
divisor
quotient

Inequalities

- > greater than
- < less than
- ≥ greater than or equal to
- ≤ less than or equal to

Data Set

group of numbers $\{3, 4, 5, 6\}$

Graphing Inequalities

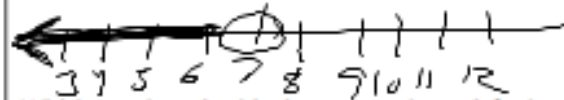
○ open $> <$

● closed $\geq \leq$

If the variable's first sign points the direction

$\geq \rightarrow \leftarrow$

Graph the inequality $y < 7$



Which numbers in this data set make satisfy the inequality?

$\{3, 5, 6, 7, 9, 10\}$

Solving Inequalities

opposite operation
sign stays the same

Solve the inequality $y - 5 \geq 9$

$$y \geq 9 + 5$$

$$y \geq 14$$

Name 3 values that satisfy the inequality.

15, 16, 17, 14.5

Satisfying Multiple Inequalities

Solve both inequalities

$$x - 4 > 5$$

$$6x \leq 72$$

$$x - 4 > 5$$

$$+4$$

$$x > 9$$

$$6x \leq 72$$

$$72 \div 6$$

$$x \leq 12$$

Name 3 numbers that would satisfy both inequalities.

12 11 9.5

Patterns and Tables

What do I have to do to x to get y ?

• Checking $\frac{y}{x}$ $\frac{x}{y}$

• If one step doesn't work for all, then it's two steps

Study the table below.

x	y
3	10
4	13
5	16

What is the rule for the table?

$$x \times 3 + 1$$

What is the equation for the table?

$$y = 3x + 1$$

Equations to Graphs

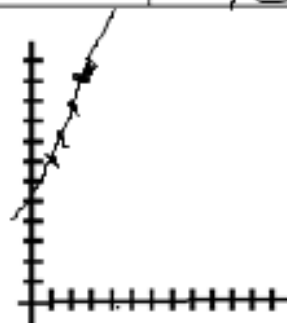
Make a t-chart for x and y

Plot the points on a coordinate plane

Draw a line through the points

$$y = x + 6$$

x	y
1	7
2	8
3	9
4	10



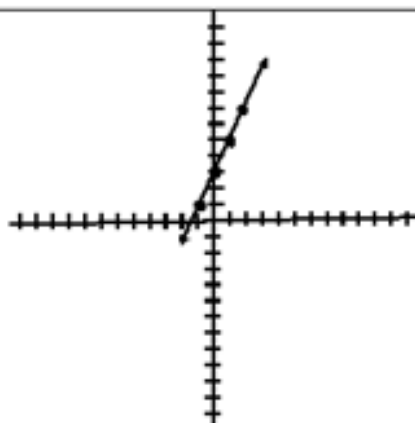
Equations from Graphs

Pick 3 points

Make a chart
for those points

Figure out the
pattern (rule)

Make the rule
into an equation



x	y
-1	1
0	3
1	5

Write the equation for the line.
 $y = 2x + 3$

Using Graphs to Estimate Data

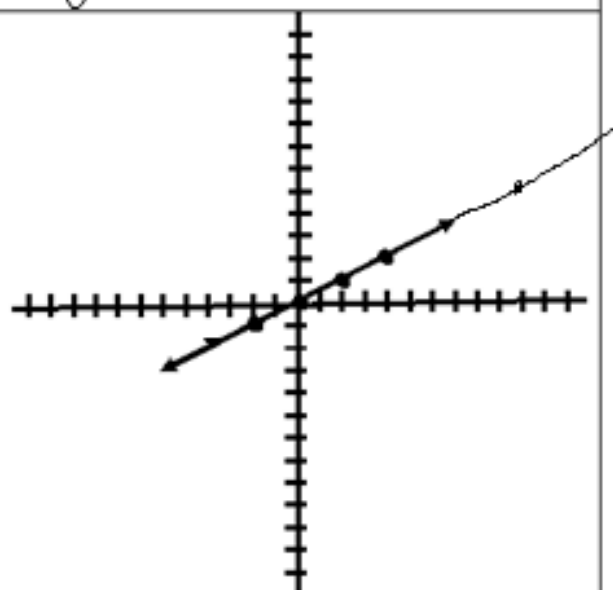
Find the point
on the graph,
extend the line
if necessary

What is the value of y if x = -4?

-2

What is the value of y if x = 10?

5



My student studied for at least 30 minutes.

Parent Signature _____ Date _____