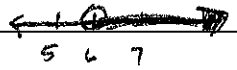
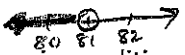
Name: _____

Algebra Part 2 Study Guide

6.EE.5 Solving equations and inequalities using replacement sets

What are 3 possible answers for the inequality: $4x > 24$ $\div 4$ $\quad$ $\{7, 8, 9\}$ Hint: You may want to graph your inequalities.  	What are 3 possible answers for the inequality: $x + 3 < 27$ $\quad -3$ $\quad -3$ $x < 81$  Hint: You may want to graph your inequalities. $\{78, 79, 80\}$

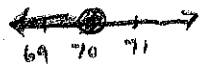
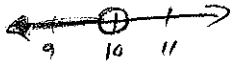
6.EE.6 Writing Equations

Write the equation: A number less than 4 is 8. $n - 4 = 8$	Write the equation: The quotient of x and 3 is 9 $\frac{x}{3} = 9$
Write the equation: Twice y is 24. $2y = 24$	Write the equation: The sum of x and 4 divided by 2 is 36. $\frac{x+4}{2} = 36$

6.EE.7 Solve real world equations

Eric took some erasers from a box of 25. There are 7 erasers left. WRITE and SOLVE an equation to show how many erasers he took. $x + 7 = 25$ $\quad -7 \quad -7$ $\quad x = 18$ erasers	There are 28 students in Mrs. Atkins' class. Each student has the same number of folders. There is a total of 112 folders. WRITE and SOLVE an equation to show each student has. $28x = 112$ $\quad \frac{28x}{28} = \frac{112}{28}$ $\quad x = 4$ folders
Sally has 21 CD's. She has 3 boxes and puts an equal number in each box. WRITE and SOLVE and equation to determine how many CD's are in each box. $3x = 21$ $\quad \frac{3x}{3} = \frac{21}{3}$ $\quad x = 7$ cds	Alex took some eggs from a carton of 24. There are 3 eggs left. How many eggs did take? WRITE and SOLVE the equation to represent Alex's situation. $x + 3 = 24$ $\quad x + 3 = 24$ $\quad -3 \quad -3$ $\quad x = 21$ eggs

6.EE.8 Write and graph inequalities

The maximum speed limit on I-40 is 70 mph. Write an inequality statement and graph the solution on a number line. $m \leq 70$  	Andy has less than $10 in his pocket. Write an inequality statement and graph on a number line. $m < 10$ 
The Jones' family has less than $100 to spend on groceries this week. Write and graph the inequality to represent this situation.	The minimum requirement to ride the rollercoaster is 42" (inches) tall. Write and graph an inequality that represents this situation.

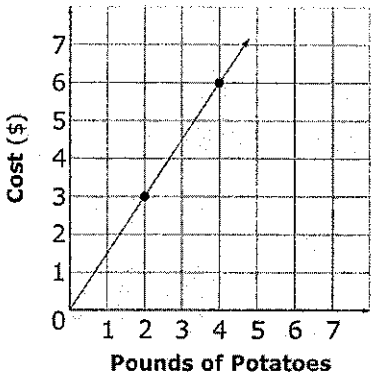
$m < 100$

$h \geq 42$

Name: _____

6.EE 9: Dependent and Independent Variables

The graph below shows the cost, *c*, of potatoes based on their weight, *w*.



w	c
2	3
4	6

c = .67w

Which equation would calculate the cost of *w* pounds of potatoes?

a. c = 0.67w
b. c = 1.00w
c. c = 1.50w

A

The table below shows the number, *x*, of gallons of gas used to drive *y* miles.

Gallons of Gas Used (*x*)	Miles Driven (*y*)
3 x 24	72
4 x 24	96
5 x 24	120

Which equation could be used to calculate the gallons of gas needed to drive *y* miles?

a. Y = 24x
b. Y= 48x
c. Y= 72x

y = 24x

A

The table below shows the cost of CD cases based on the number purchased.

CD Cases Purchased (*x*)	Cost (*y*)
3 x 1.20	$3.60
6	$7.20
9	$10.80

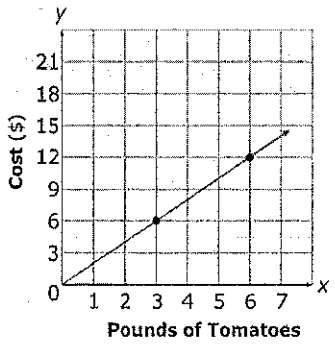
Which equation could be used to calculate the cost for *x* CD cases?

y = 1.20x

a. Y = 1.20x
b. Y = 3.60x
c. Y = 1.20 + x

A

The graph below shows the cost of tomatoes, *y*, based on their weight in pounds, *x*.



x	y
3	6
6	12

y = 2x

Which equation could be used to calculate the cost of *x* pounds of tomatoes?

a. Y = 0.50x
b. Y = 2x
c. Y = 3x

B