

MULTIPLE CHOICE

Identify the choice that best completes the statement or answers the question.

1. List out the characteristics of a direct variation graph. (Where does it start, what does it look like?)

STARTS AT (0,0) ORIGIN
ALWAYS A STRAIGHT LINE

Solve the equations below. Show all of your work, including the check.

① INV
② SOL
③ SUB
④ CHECK

1. $\frac{1}{5}x = 42$
 $x = \frac{42}{1} \div \frac{1}{5}$
 $x = \frac{42 \cdot 5}{1}$
 $x = 210$

2. $\frac{1}{5} \cdot 210 = 42$
 $42 = 42 \checkmark$

3. $67 + c = 183$
 -67
 $c = 116$

4. $67 + 116 = 183$
 $183 = 183 \checkmark$

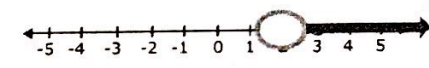
5. $j - 5.6 = 4.6$
 $+5.6$
 $j = 10.2$

6. $10.2 - 5.6 = 4.6$
 $4.6 = 4.6 \checkmark$

2. Jennifer spent \$8.99 on a bag of Jolly Ranchers that cost x dollars a piece. If there were 110 Jolly Ranchers in the bag, write an equation that could be solved using inverse operations to find out how much each Jolly Rancher would cost. (You do not need to solve the equation.)

$110x = 8.99$ $\frac{8.99}{110} = x$

5. Write a situation that could describe the following inequality graph.
- YOU WILL RECEIVE MORE THAN 2 PTS EXTRA CREDIT ON YOUR TEST.



6. Write an inequality to represent the fact that there are at least 13 questions on your test. $x \geq 13$
7. Write an inequality to represent that there are more than 125 cars in the parking lot. $x > 125$

8. Gabriel wants to solve the equation, $\frac{3}{4}m = 25$. Which step should he do to isolate m on one side of the equation? DIVIDE BY $\frac{3}{4}$

9. Judy spent \$5.67 on oranges that cost \$0.63 each. If x = the number of oranges, write an equation that would determine how many oranges Judy purchased? $.63x = 5.67$

10. Write a direct variation equation to represent the data in the table.

x	0	1	2	5
y	0	5	10	25

$K=5$ $y=kx$
 $y=5x$

11. Write one possible solution and one non-solution to the inequality, $x > 4$. SOL. 5 NON SOL 0

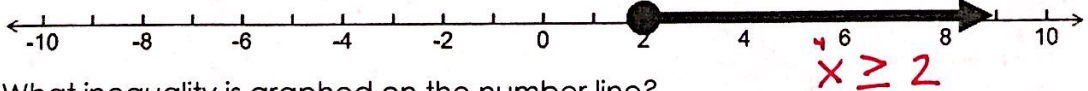
12. Explain how to solve an equation. ① INV OPS ON BOTH SIDES ② SOLVE ③ SUB ④ CHECK

13. Complete the table to satisfy the direct variation equation, $y=12x$

x	0	1	2	4	5
y	0	12	24	48	60

$y=12x$ $y=12 \cdot 2$ $y=12 \cdot 5$
 $y=12(1)$ $\frac{48}{12} = \frac{12x}{12}$
 $4 = x$

14. What inequality is graphed on the number line?



15. What inequality is graphed on the number line?

