

Review Guide for Assessment #5 (Accelerated 6th Grade Math)

6.EE.5 Use Substitution To Identify Solutions

1. Look at the following inequality: $n + 5 > 14$ $n = 11$ and $n = 13$
 Which value(s) of n from the set $\{5, 7, 9, 11, 13\}$ make the inequality true? Explain your response.
 $5 + 5 > 14?$ | $7 + 5 > 14?$ | $9 + 5 > 14?$ | $11 + 5 > 14?$ | $13 + 5 > 14?$
 $10 > 14$ NO | $12 > 14$ NO | $14 > 14$ NO | $16 > 14$ YES | $18 > 14$ YES
2. Molly tutors 2 clients and earns more than \$50. Using the inequality $2x > 50$, which value from the set $\{\$13, \$19, \$25, \$32\}$ represents how much money she earns per client? Show how you determined your answer.
- A. $2 \cdot 13 > 50?$
 $26 > 50$ NO
- B. $2 \cdot 19 > 50?$
 $38 > 50$ NO
- C. $2 \cdot 25 > 50?$
 $50 > 50$ NO
- D. $2 \cdot 32 > 50?$
 $64 > 50$ YES

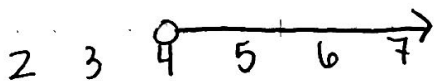
6.EE.8 Write & Graph Inequalities

3. Emma has \$32 in her savings account and wants to buy a set of toy trucks that cost at least \$40. Let x represent the amount that Emma needs to save in order to have enough money to buy the toy trucks. Write an inequality to represent this situation.

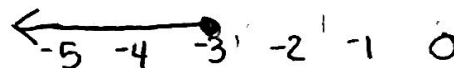
$$32 + x \geq 40$$

4. Graph each inequality on the number lines provided.

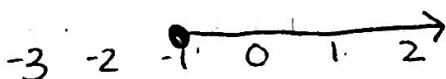
a) $m > 4$



b) $x \leq -3$



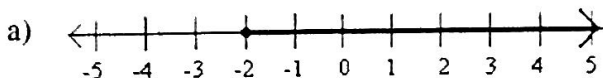
c) $b \geq -1$



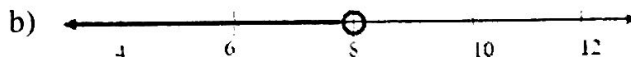
d) $a < 8$



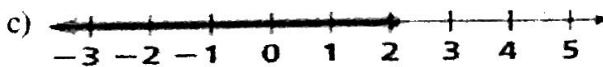
5. Write an inequality that models each graph below:



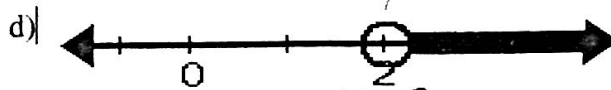
$$x \geq -2$$



$$x < 8$$



$$x \leq 2$$

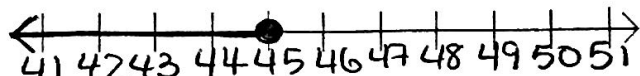


$$x > 2$$

6. For each situation, write an inequality, define your variables, and graph the solutions on a number line.

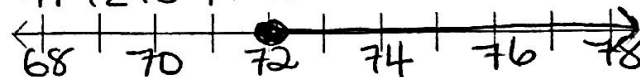
- a) Carson spends no more than \$45 at the movies.

$x = \$$ Carson spends $x \leq 45$



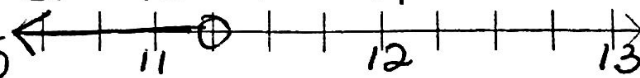
- b) Jake needs at least \$72 to go on the trip.

$x = \$$ Jake spends $x \geq 72$



- c) Megan earns less than \$11.25 per hour.

$x = \$$ Megan earns $x < 11.25$



- d) Joe needs to sell 12 or more items this week to meet his goal.

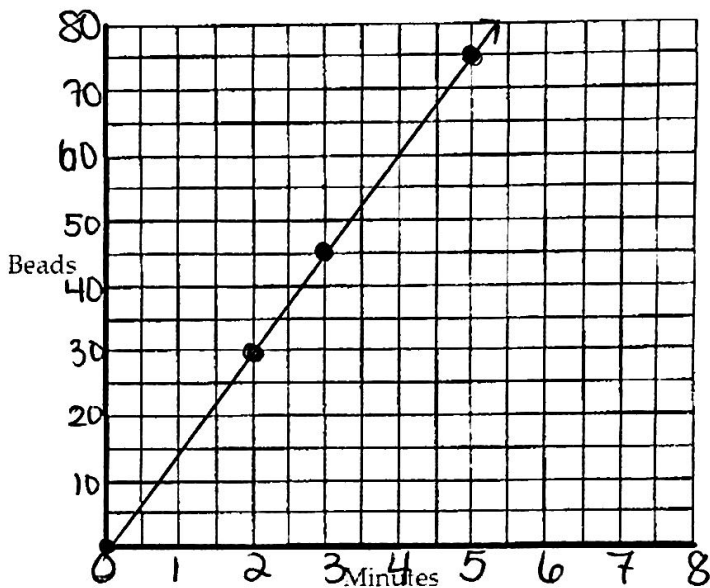
$x = \#$ of items Joe sells $x \geq 12$



6.EE.9 Variables, Tables, & Graphs

7. a) Graph the ordered pairs to represent the relationship between minutes and beads.

Minutes (m)	Beads (b)
0	0
2	30
3	45
5	75



b) Write an equation to illustrate the relationship between the two variables.

$$b = 15m$$

c) How many beads would be made in 12 minutes?

180 beads

8. A waitress earns \$15 per hour. The equation $y = 15x$ represents the amount that earns, y .

Part A: Complete the table below based on this relationship.

Hours Worked, x	Money Earned, y
0	0
4	60
10	150
15	225

Part B: Identify the independent and dependent variables.

independent: hours worked dependent: money earned

Part C: How much money would she earn if she worked 80 hours?

$$y = 15(80) = \$1,200$$

9. Using the table on the right...

# of hours (t)	1	2	3	4
Distance in miles (d)	40	80	120	160

a) How far do you travel each hour?

40 miles

b) Which is the independent variable and which is the dependent variable? Explain why.

The number of hours is the independent variable and the distance is the dependent variable because the distance traveled depends upon the time spent traveling.

c) Write an equation to represent the relationship between the distance (d) and the # of hours (t).

$$d = 40t$$

d) Your destination is 100 miles away and you were hoping to arrive in 2 hours. Will you make it there? If not, explain how you know and when you will arrive. Justify your answer!

No. In 2 hrs., you will only have traveled 80 miles. It will take you 2.5 hours to travel 100 miles, because $40 \cdot 2.5 = 100$.