

Math 6 - Unit 4: One-Step Equations and Inequalities

Name: _____

Unit 4 Interim Assessment Study Guide

Class Period: 1 2 3 4 Date: _____

- 1) Sarah completed twenty math problems in one night. Write an equation to show how many more problems (p) she will need to complete if there are 50 problems on her assignment?

Answer: _____

- 2) Mrs. Katz wrote the equation below to show t , the total number of minutes she spent grading papers last quarter.

$$t = 5n$$

If Mrs. Katz spent 45 minutes grading papers last quarter, how many days did she grade papers?

Answer: _____

- 3) What is the solution to $x + \frac{1}{7} = \frac{1}{2}$?

Answer: _____

- 4) There are x students in Ms. Ledesma's class and $\frac{4}{5}$ of them received a Cobb County laptop. If 20 of the students received a laptop, write an equation that can be used to find the number of students in the class?

Answer: _____

- 5) Find the value of d in the equation

$$\frac{d}{14} = 51$$

Answer: _____

- 6) Tickets to a Taylor Swift concert cost \$42.75 each. The equation $42.75x = y$ represents the relationship between the number of people buying tickets and the total cost of the tickets.

What quantity represents the dependent variable in the equation above?

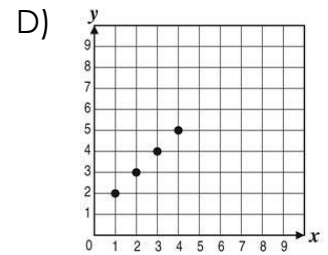
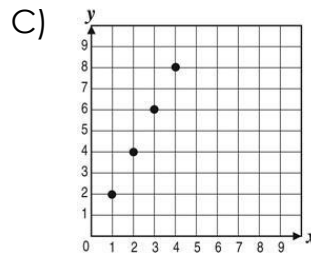
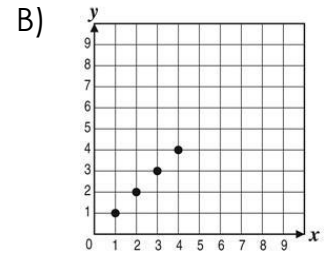
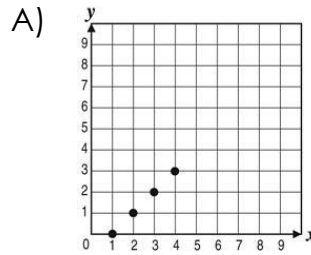
- A) x , the number of people buying tickets
- B) y , the number of people buying tickets
- C) x , the total cost of the tickets
- D) y , the total cost of the tickets

Answer: _____

7) Remi is selling wrapping paper to raise money for the ECMS Band. Each roll of wrapping paper costs \$12.00. If w represents the number of rolls of wrapping paper she sells and t represents the total amount collected, write an equation to model the amount of money she could raise.

Answer: _____

8) Lia used the equation $y = x$ to represent that the time it takes to finish her homework (y) is always equal to the time it takes to complete her chores (x). Which graph represents four solutions to Lia's equation?



Answer: _____

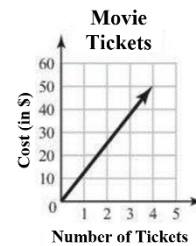
9) Antonio recorded the number of books he read over time. The table shows his results.

Weeks (x)	Books Read (y)
3	15
4	20
5	25
6	30

Write an equation that represents the relationship between the number of weeks and the number of books Antonio read.

Answer: _____

10) The graph shows y , the cost of buying movie tickets for x number of people.



Which is the independent variable and why?

- A) y , because the total cost for movie tickets increases as the number of people increases.
- B) y , the cost of movie tickets does not depend on the number of people for whom the tickets were bought
- C) x , because the number of people that tickets were purchased for does not depend on the total cost for the movie tickets.
- D) x , because the number of people tickets were bought for increases as the total cost the tickets increases.

Answer: _____

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ANSWER KEY

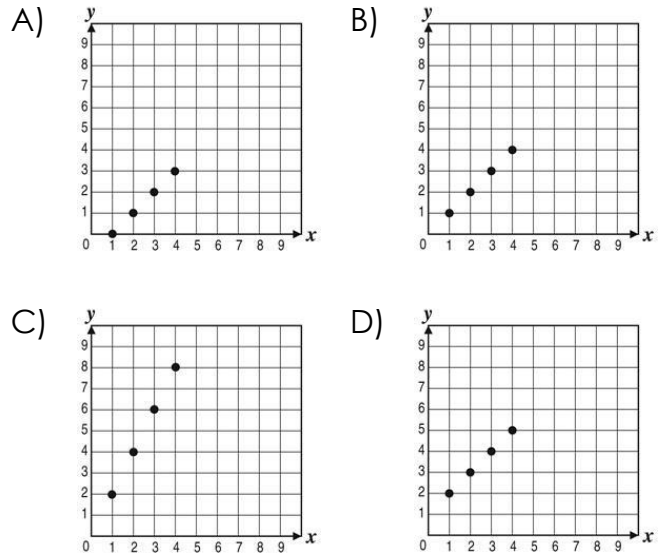
Class Period: 1 2 3 4 Date: _____

<p>1) Sarah completed twenty math problems in one night. Write an equation to show how many more problems (p) she will need to complete if there are 50 problems on her assignment?</p> <p style="text-align: right;">Answer: $x + 20 = 50$</p>	<p>2) Mrs. Katz wrote the equation below to show t, the total number of minutes she spent grading papers last quarter.</p> $t = 5n$ <p>If Mrs. Katz spent 45 minutes grading papers last quarter, how many days did she grade papers?</p> <p style="text-align: right;">Answer: 9 days</p>
<p>3) What is the solution to $x + \frac{1}{7} = \frac{1}{2}$?</p> <p style="text-align: right;">Answer: $x = \frac{5}{14}$</p>	<p>4) There are x students in Ms. Ledesma's class and $\frac{4}{5}$ of them received a Cobb County laptop. If 20 of the students received a laptop, write an equation that can be used to find the number of students in the class?</p> <p style="text-align: right;">Answer: $\frac{4}{5}s = 20$</p>
<p>5) Find the value of d in the equation</p> $\frac{d}{14} = 51$ <p style="text-align: right;">Answer: $d = 714$</p>	<p>6) Tickets to a Taylor Swift concert cost \$42.75 each. The equation $42.75x = y$ represents the relationship between the number of people buying tickets and the total cost of the tickets.</p> <p>What quantity represents the dependent variable in the equation above?</p> <p>A) x, the number of people buying tickets B) y, the number of people buying tickets C) x, the total cost of the tickets D) y, the total cost of the tickets</p> <p style="text-align: right;">Answer: D</p>

7) Remi is selling wrapping paper to raise money for the ECMS Band. Each roll of wrapping paper costs \$12.00. If w represents the number of rolls of wrapping paper she sells and t represents the total amount collected, write an equation to model the amount of money she could raise.

Answer: $t = 12w$

8) Lia used the equation $y = x$ to represent that the time it takes to finish her homework (y) is always equal to the time it takes to complete her chores (x). Which graph represents four solutions to Lia's equation?



Answer: **B**

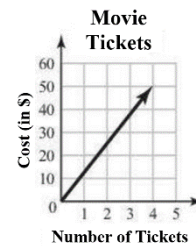
9) Antonio recorded the number of books he read over time. The table shows his results.

Weeks (x)	Books Read (y)
3	15
4	20
5	25
6	30

Write an equation that represents the relationship between the number of weeks and the number of books Antonio read.

Answer: $y = 5x$

10) The graph shows y , the cost of buying movie tickets for x number of people.



Which is the independent variable and why?

- A) y , because the total cost for movie tickets increases as the number of people increases.
- B) y , the cost of movie tickets does not depend on the number of people for whom the tickets were bought
- C) x , because the number of people that tickets were purchased for does not depend on the total cost for the movie tickets.
- D) x , because the number of people tickets were bought for increases as the total cost the tickets increases.

Answer: **D**