

Directions: Answer the following question(s).

- 1 Andrea has $1\frac{1}{3}$ yards of fabric to make book covers. Each book cover is made of $\frac{1}{6}$ of a yard of fabric.

How many book covers can Andrea make?

- A. 3 book covers
- B. 6 book covers
- C. 8 book covers
- D. 9 book covers
- E. None of the above

- 2 Three people share $\frac{2}{5}$ pound of candy.

How much candy does each person get?

- A. $1\frac{1}{5}$ pounds of candy
- B. $\frac{3}{5}$ pounds of candy
- C. $\frac{1}{4}$ pounds of candy
- D. $\frac{2}{15}$ pounds of candy
- E. None of the above

- 3 Choose all statements that are related to this problem.

How would you divide 16 into 7856?

- A. $\frac{16}{7856}$
- B. $\frac{7856}{16}$
- C. 16 is the divisor
- D. 16 is the dividend
- E. 7856 is the divisor
- F. 7856 is the dividend

- 4 Select the answer that is the best estimate.

The product of 16.8 and 6.35.

- A. 96
- B. 102
- C. 112
- D. 119
- E. 200

- 5 Mrs. Caruso donated a total of 60 hot dogs and 48 bags of chips for the class picnic. Each student will receive the same amount of refreshments. There will be no left overs.

What are the greatest number of students?

How many bags of chips will each student receive?

How many hot dogs will each student receive?

Select all statements that answer the questions above.

- A. The greatest number of students is 6.
- B. The greatest number of students is 12.
- C. The greatest number of students is 15.
- D. Each student received 10 hot dogs.
- E. Each student received 5 hot dogs.
- F. Each student received 4 hot dogs.
- G. Each student received 8 bags of chips.

Directions: Answer the following question(s).

- 6 Today, both the soccer team and the basketball team had games. The soccer team plays every 6 days and the basketball team plays 14 days.

When will both teams have games on the same day again?

- A. 2 days
- B. 12 days
- C. 24 days
- D. 28 days
- E. 42 days
- F. 84 days

- 7 What integer represents 123 feet below sea level?

- A. 123
- B. |123|
- C. -123
- D. None of the above

- 8 What is the opposite of $-1\frac{2}{3}$?

- A. $-1\frac{2}{3}$
- B. $\frac{1}{3}$
- C. $-\frac{1}{3}$
- D. $1\frac{2}{3}$

- 9 Given the coordinate $\left(-\frac{3}{4}, 1\frac{1}{4}\right)$

What quadrant is it in?

What is the coordinates of the point reflected across the y-axis?

- A. Quadrant I
- B. Quadrant II
- C. Quadrant III
- D. Quadrant IV
- E. $\left(\frac{3}{4}, 1\frac{1}{4}\right)$
- F. $\left(\frac{3}{4}, -1\frac{1}{4}\right)$
- G. $\left(-\frac{3}{4}, -1\frac{1}{4}\right)$
- H. $\left(-\frac{3}{4}, 1\frac{1}{4}\right)$

- 10 Write the values from least to greatest?

0.35, 1.7, $-1/3$, $3/7$, -0.65, $7/4$, 40%, |-8|

- A. 0.35, 1.7, $-1/3$, $3/7$, -0.65, $7/4$, 40%, |-8|
- B. |-8|, -0.65, $-1/3$, 0.35, $3/7$, 1.7, $7/4$, 40%
- C. -0.65, $-1/3$, $3/7$, 0.35, 1.7, $7/4$, 40%, |-8|
- D. -0.65, $-1/3$, $3/7$, 0.35, 40%, 1.7, $7/4$, |-8|
- E. -0.65, $-1/3$, 0.35, 40%, $3/7$, 1.7, $7/4$, |-8|

- 11 On a bicycle Jack can travel 25 miles in 5 hours.

What are the two ways to represent the unit rate for this situation?

- A. 25 miles per 5 hours
- B. 5 miles per hour
- C. 5 hours per mile
- D. $1/5$ miles per hour
- E. $1/5$ hours per mile
- F. 25 hours per 5 miles

Directions: Answer the following question(s).

- 12 At CD World, 6 CD's cost \$42.
What would the cost be for 9 CD's?
How many CD's could be bought for \$112?
Mark the selections that answer these questions.
- A. \$6 for 9 CD's
 - B. \$7 for 9 CD's
 - C. \$54 for 9 CD's
 - D. \$63 for 9 CD's
 - E. 9 CD's for \$112
 - F. 15 CD's for \$112
 - G. 16 CD's for \$112
 - H. 18 CD's for \$112

- 13 Compare the number of tulips to roses from the diagram below.

T T T R R R R R R R R

How many tulips will you have, if you have 84 roses?

- A. 80 tulips
 - B. 60 tulips
 - C. 42 tulips
 - D. 36 tulips
 - E. 28 tulips
 - F. None of the above
- 14 If 8 is 25% of a value, what is the value?
- A. 2
 - B. 8
 - C. 24
 - D. 32
 - E. None of the above

- 15 A credit card company charges 21% interest on any charges not paid at the end of the month.

If your unpaid balance is \$520, how much interest will you have to pay?

- A. \$247.62
 - B. \$247.61
 - C. \$24.76
 - D. \$109.20
 - E. \$10.92
 - F. None of the above
- 16 What is the solution to $(0.4)^3$?
- A. 1.2
 - B. 64
 - C. 12
 - D. 6.4
 - E. 0.12
 - F. 0.064
 - G. None of the above

- 17 Solve: $8^2 - 32 \div 4 + 13$

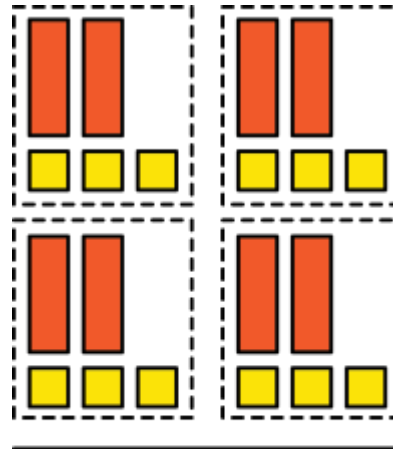
- A. 17
- B. 21
- C. 69
- D. 43
- E. 5
- F. None of the above

Directions: Answer the following question(s).

- 18 Which of the following situations can be solved by using the equation $5t = 175$? Select *all* that apply.
- A. An elephant eats 5 tons of food every day. After t number of days, the elephant will have eaten 175 tons of food.
 - B. Thomas won \$175 in a contest. He decided to give his sister \$5, and now Thomas has t dollars left from his winnings.
 - C. It takes Mr. Martinez t number of minutes to grade 1 math test. If Mr. Martinez has 5 tests to grade, he will work for a total of 175 minutes.
 - D. Mary's bookshelf can hold a total of 175 books. Mary has 5 books on the top shelf, so she will be able to fit t number of books on the bottom shelf.
 - E. A painter is calculating the amount of paint he used on a project. He knows that he used 5 gallons of paint every day for 175 days, so he used a total of t gallons of paint.

- 19 How could the statement "12 less than x " be written?
- A. $x \div 12$
 - B. $12 + x$
 - C. $x - 12$
 - D. $12 - x$

- 20 A student drew the following model to represent the expression $4(2x + 3)$.



Which model and expression are equivalent to $4(2x + 3)$?

- A. $5x + 4$
- B. $8x + 12$
- C. $8x + 3$
- D. $2x + 12$

Directions: Answer the following question(s).

21 Which of the following are equivalent expressions? Select two that apply.

- A. $7 - w = w - 7$
- B. $3h^4 = 3 \times h \times h \times h \times h$
- C. $6c + 4 = c + c + c + c + c + c + 4$
- D. $d^2 + 3e = d \times d + e \times e \times e$

22 Select all expressions that are equivalent to $9(6k + 3r)$.

- A. $15k + 12r$
- B. $54k + 27r$
- C. $6(3k + 0r)$
- D. $3(18k + 9r)$

23 Select all equations that have $x = 9.81$ as a solution.

- A. $29.07 + x = 38.88$
- B. $x + 45.25 = 55.06$
- C. $x \cdot 8 = 77.48$
- D. $3 \cdot x = 294.3$

24 The skating rink charges \$75 to reserve the place and then \$7 per person.

What is the equation that represents this situation and how much would it cost for 35 people?

- A. $t = 7x$ and \$245
- B. $t = 7x + 35$ and \$280
- C. $t = 7x + 75$ and \$320
- D. $t = 82x$ and \$574
- E. None of the above

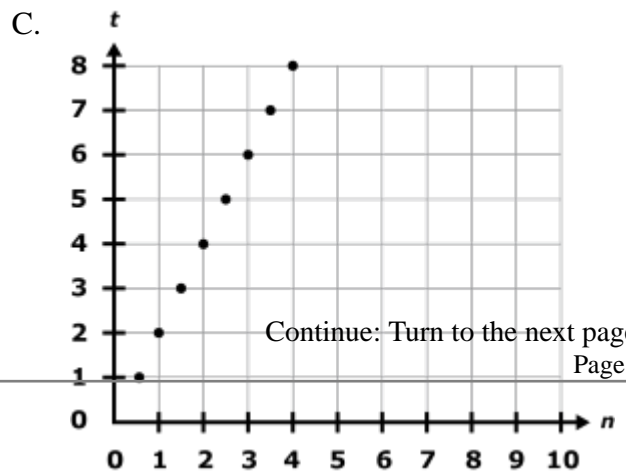
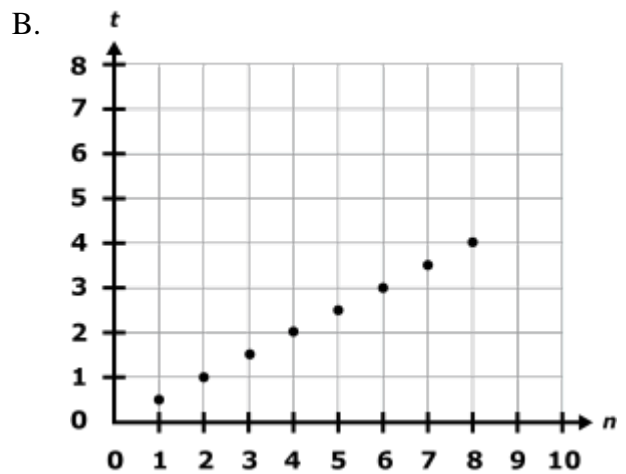
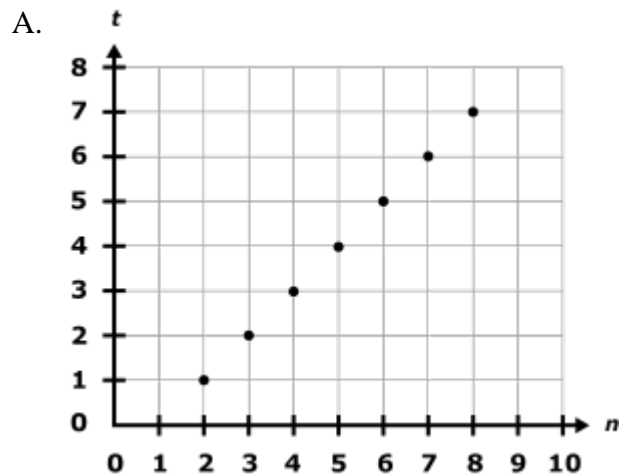
25 Using substitution, in which of the following equations does $s = 4$? Select two that apply.

- A. $8s + 1 = 33$
- B. $3s + 7 = 20$
- C. $2s + 9 = 17$
- D. $4s + 6 = 40$

26 Sam gets paid a set rate in his allowance for making his bed every morning. His rate is \$0.50 earned for every morning that he makes his bed.

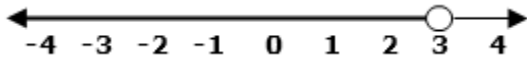
- Let n represent the number of days Sam makes his bed.
- Let t represent the total amount earned, in dollars.

Which graph shows the amount of money that Sam earned when he made his bed over the course of 8 days?



Directions: Answer the following question(s).

- 27 Which of these inequalities is represented by the number line below, and why?



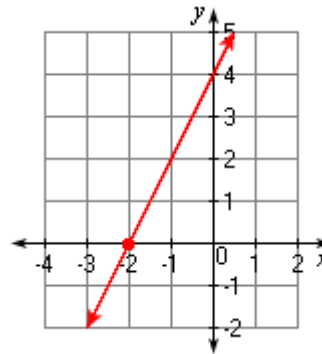
- A. $x < 3$, because the open dot means that 3 is not included in the solution
 B. $x < 3$, because the open dot means that 3 is included in the solution
 C. $x > 3$, because the open dot means that 3 is not included in the solution
 D. $x > 3$, because the open dot means that 3 is included in the solution

- 28 Write the expression that illustrates the relationship below.

x	2	4	6	8
y	10	20	30	40

- A. $2x + 6$
 B. $4x + 2$
 C. $5x$
 D. $10x$
 E. None of the above

- 29 Write the expression that illustrates the relationship below.



- A. $-2x + 4$
 B. $2x + 4$
 C. $2x - 2$
 D. $4x - 2$
 E. None of the above

- 30 Ms. Jimenez has 22 students in her class: 14 boys and 8 girls. She writes the name of each student on a slip of paper and puts each slip into a bag.

Before Ms. Jimenez draws a name out of the bag, a student in the class makes the following claim: "Ms. Jimenez will probably draw a boy's name from the bag because the ratio of boy names to girl names is 7:11."

The student made an incorrect claim. Which statement correctly describes the mistakes that were made?

- A. Ms. Jimenez will most likely draw a boy's name and not a girl's name, but the ratio of boy names to girl names should be 4:7.
 B. Ms. Jimenez will most likely draw a girl's name and not a boy's name, and the ratio of girl names to boy names is 4:7.
 C. Ms. Jimenez will most likely draw a girl's name and not a boy's name, and the ratio of girl names to boy names is 4:11.
 D. Ms. Jimenez will most likely draw a boy's name and not a girl's name, but the ratio of boy names to girl names is 7:4.

Directions: Answer the following question(s).

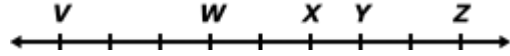
31 How many $\frac{2}{3}$ ounce servings are in 3 ounces of honey?

- A. $\frac{2}{9}$
- B. 2
- C. $3\frac{2}{3}$
- D. $4\frac{1}{2}$

32 The temperature at breakfast was -6° F. That evening at dinner the temperature was 23° F. What was the change in temperature between breakfast and dinner?

- A. 17°
- B. 27°
- C. 29°
- D. 37°

33 Mr. Mendoza drew a number line labeled with five points, as shown below:



Mr. Mendoza asked his students to write a statement using inequalities about the locations of any two points from the number line. Some of the student responses are shown in the table below.

Student	Response
Alexa	Point X = Point Y because they are next to each other on the number line.
Brydon	Point W > Point Y because Point W is to the left of Point Y.
Cecilia	Point X < Point Z because Point Z is to the right of Point X.
David	Point V < Point X because Point V is to the right of Point X.
Evan	Point Y > Point V because Point V is to the left of Point Y.

Which two students wrote correct responses?

- A. Alexa
- B. Brydon
- C. Cecilia
- D. David
- E. Evan

34 The Student Council at Eastwood Middle School is collecting aluminum cans during lunch for a recycling project. The members created a table showing the number of cans collected each week.

Total Number of Cans Collected <i>n</i>	Total Number of Weeks Spent Collecting <i>w</i>
75	1
150	2
225	3

Enter the number of weeks it will take the Student Council to collect a total of 1050 cans.

weeks