

TEST NAME: **Summer packet 2017**
TEST ID: **30367**
GRADE: **SEVENTH GRADE**
SUBJECT: **Mathematics**
TEST CATEGORY: **School Baseline**

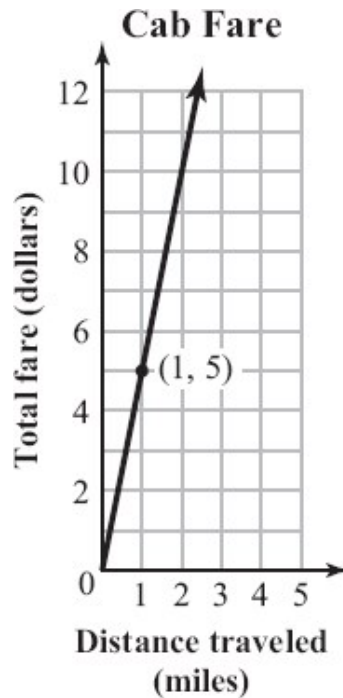
Student: _____

Class: _____

Date: _____

Read the passage - 'G8 baseline q4' - and answer the question below:

G8 baseline q4



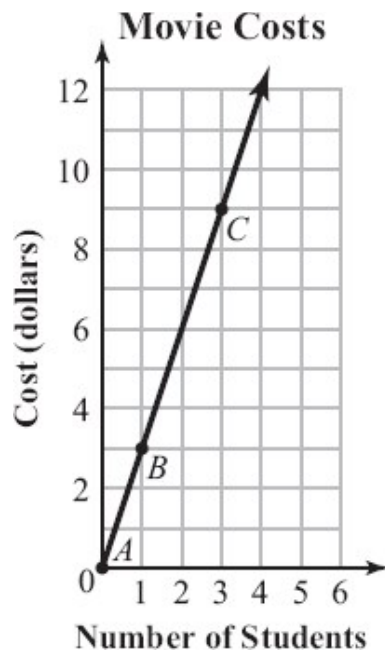
1. A city cab charges a fare per mile traveled. The graph shows the fare for the number of miles traveled.

Which statement describes the point (1, 5)?

- A. The unit rate is 5 dollars per each mile.
- B. The unit rate is 1 dollar per each 5 miles.
- C. The unit rate is 5 miles per each dollar.
- D. The unit rate is 1 mile per each dollar.

Read the passage - 'G8 baseline q10 Movie Costs' - and answer the question below:

G8 baseline q10 Movie Costs



2. Look at this graph showing the cost for students to go to a movie.

Which situation describes point *A*?

- A. If 0 students attend, the cost will be \$0.00.
- B. If 1 student attends, the cost will be \$3.00.
- C. If 3 students attend, the cost will be \$1.00.
- D. If 3 students attend, the cost will be \$9.00.

3. A video game is on sale for 30% off the regular price of \$50. What is the sale price of the video game?

- A. \$20
- B. \$30
- C. \$33
- D. \$35

4.

What is the value of z if $\frac{7}{6}z + \frac{1}{3} = -\frac{5}{6}$?

A. 1

B. $\frac{12}{21}$

C. 0

D. -1

5. A cell phone plan charges \$39.90 a month, plus \$0.05 per text message. Which inequality can be solved to find how many text messages, x , can be sent while still keeping the monthly bill under \$50?

A. $39.9 + 0.05x > 50$

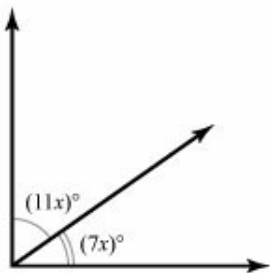
B. $x(39.9 + 0.05) < 50$

C. $39.9 + 5x < 50$

D. $39.9 + 0.05x < 50$

6. Mary is filling a jar shaped like a square prism with a bag of confetti that is labeled as containing 100 cubic inches. The base of her prism is 3 inches by 3 inches and the height is 10 inches. Will the confetti fit in the jar? Explain.

7. The figure below shows a right angle divided into two different angles. The measure of the larger angle is $(11x)^\circ$, and the measure of the smaller angle is $(7x)^\circ$. **Angles are not drawn to scale.**



What is the measure of the smaller angle? **Show your work.**

_____ degrees

8. Which statement **best** describes the expression $\frac{-36}{2} \div -4\frac{1}{2}$?
- A. It is equal to 4 because $\frac{-4}{-1}$ is equal to $\frac{4}{1}$.
- B. It is equal to $\frac{1}{4}$ because $\frac{-1}{-4}$ is equal to $\frac{1}{4}$.
- C. It is equal to -4 because $\frac{-4}{-1}$ is equal to $\frac{-4}{1}$.
- D. It is equal to $\frac{-1}{4}$ because $\frac{-1}{-4}$ is equal to $\frac{-1}{4}$.

9. On Monday, Greg walks the entire length of a trail that is $3\frac{1}{2}$ miles long. On Tuesday, he walks the entire length of a trail that is 4.6 miles long. On Wednesday, he starts out on a trail that is $2\frac{1}{5}$ miles long, but he does not walk the final 1.7 miles. How many miles does Greg walk in all on Monday, Tuesday, and Wednesday?

- A. $8\frac{3}{5}$ miles
- B. $8\frac{3}{50}$ miles
- C. $10\frac{3}{10}$ miles
- D. $10\frac{3}{100}$ miles

10. The temperature decreases a total of 26.4 degrees Celsius over 2.2 days in Aruba in the middle of the winter. Write a number that represents how much the temperature changes each **hour**.

11. The length of a recycling cart is 1.5 yards.

$1 \text{ yard} = 3 \text{ feet}$

Part A

What is the length, in feet, of the recycling cart? **Show your work.**

_____ feet

Part B

Bret has a storage box that is the same height as the recycling cart. He finds that 3.2 times the length, in feet, of his storage box is equal to 1.6 times the length, in feet, of the recycling cart. Using a proportional relationship, what is the length, in feet, of the storage box?

Show your work.

_____ feet

Part C

The recycling cart and the storage box both have the same height. Determine whether or not the storage box would fit into the recycling cart if the width of the storage box is 2.5 feet, and the width of the recycling cart is 1 yard. **Show your work.**

Answer _____

12. Patel bought a model rocket kit from a catalog. The price of the kit was \$124.95. The state sales tax of 7% was added, and then a \$10 charge for shipping was added after the sales tax. What was the total amount Patel paid, including tax and shipping cost? (3 pts)

Show your work.

Answer \$ _____

Patel received an allowance of \$15 per week. How many weeks will it take him to purchase the kit? Show your work.

Answer _____ weeks

13. A warehouse is being remodeled in two phases. During the first phase, the 250-square-foot storage area will increase in size by 10%. During the second phase, the size of the new storage area will increase by an additional 20%. What is the total size of the storage area, in square feet, after the second phase of remodeling?
- A. 275 square feet
 B. 280 square feet
 C. 295 square feet
 D. 330 square feet
14. If Sam makes \$116.25 for 15 hours of tutoring how much money does she make per hour?
- A. \$7.25
 B. \$8.00
 C. \$7.75
 D. \$77.50
15. A popular fruit juice mixture contains 2 cups of grape juice for every 3 cups of apple juice. Three students made fruit juice mixtures of their own. This table shows the different fruit juice mixtures that the students made.

Fruit Juice Mixtures

	Tom	Sue	Mary
cups of grape juice	1	3	4
cups of apple juice	2	4	6

Which student made a fruit juice mixture that was proportional to the popular fruit juice mixture?

- A. Tom
 B. Sue
 C. Mary
 D. none of the students

16. Express the following as a proportion:

76 computers is to 190 students as 84 computers is to 210 students.

A. $\frac{76\text{computers}}{190\text{students}} = \frac{210\text{students}}{84\text{computers}}$

B. $\frac{76\text{computers}}{210\text{students}} = \frac{84\text{computers}}{190\text{students}}$

C. $\frac{190\text{students}}{76\text{computers}} = \frac{84\text{computers}}{210\text{students}}$

D. $\frac{76\text{computers}}{190\text{students}} = \frac{84\text{computers}}{210\text{students}}$

17. Which of the following ratios are proportional?

A. $\frac{2}{3} : \frac{3}{4}$

B. $\frac{5}{6} : \frac{11}{2}$

C. $\frac{6}{9} : \frac{9}{12}$

D. $\frac{3}{5} : \frac{9}{15}$

18. It takes Wayne $\frac{1}{10}$ hours to walk a $\frac{1}{6}$ mile park loop. What is Wayne's unit rate, in miles per hour?

A. $\frac{1}{10}$ mile per hour

B. $1\frac{2}{3}$ miles per hour

C. 6 miles per hour

D. 60 miles per hour

19. A bakery is selling 3 trays of muffins for \$24.00. If a customer wants to buy just one tray of muffins, how much would it cost?

Part A: How much would one tray cost?

Part B: If a \$16.00 cake were added to the single tray of muffins, what would the total be?

20. Students must mix blue and yellow paint to make different shades of green. The shade of green will be the same if the ratio of blue paint to yellow paint remains the same. The table shows six different combinations used to make green paint.

Mixing Green Paint

Parts of Blue Paint	Parts of Yellow Paint
3	6
2	3
2	4
1	2
4	5
4	6

How many different shades of green paint are made by using the combinations shown in the table?

- A. 1
- B. 2
- C. 3
- D. 6

21. A new school has a teacher-to-student ratio of 2:15. The school has 42 teachers. How many students are there in the school?

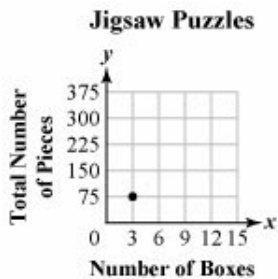
- A. 84
- B. 315
- C. 630
- D. 294

22. The function table shows the relationship between the cost and the number of ham sandwiches purchased at a deli.

Cost, C (in dollars)	Number of Sandwiches, n
1	4
2	8
3	12
4	16
5	20

Which equation shows the relationship between the cost and the number of sandwiches purchased?

- A. $C = n + 4$
- B. $C = 4n$
- C. $C = \frac{1}{4}n$
- D. $C = 4n + 4$
23. The graph below shows the total number of puzzle pieces packed in 3 jigsaw puzzle boxes of the same kind.



Mike says that 225 puzzle pieces will be packed in 9 boxes. Which statement supports Mike's claim?

- A. $(9, 225)$ lies on the straight line passing through $(0, 0)$ and $(3, 75)$.
- B. $(9, 225)$ is not at the same distance from the y -axis as $(3, 75)$.
- C. $(9, 225)$ is at the same distance from the x -axis and from the y -axis.
- D. $(9, 225)$ does not lie on the horizontal line passing through $(0, 75)$ and $(3, 75)$.
24. Determine whether the proportion $\frac{2.1}{1.1} = \frac{1.2}{2.7}$ is true.

- A. True
- B. False

25. The table below shows the cost of beads per pound.

Bead Cost

Beads (pounds)	Cost (dollars)
2	\$6.00
3	\$9.00
4	\$12.00
5	\$15.00
6	\$18.00
7	\$21.00

What is the constant of proportionality?

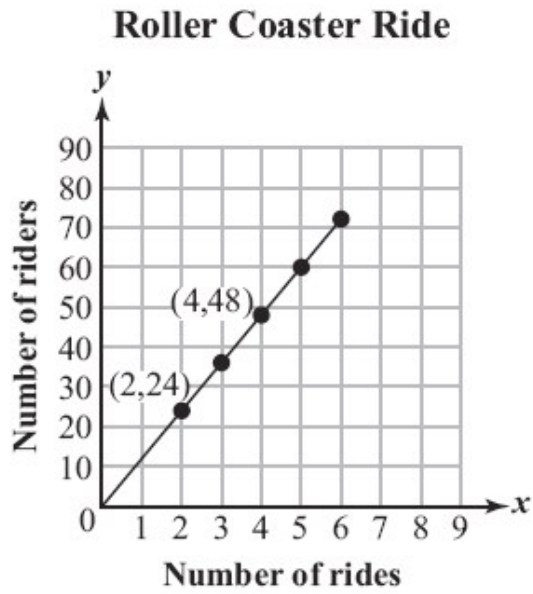
- A. \$6.00 per pound
 - B. \$3.00 per pound
 - C. \$2.00 per pound
 - D. \$1.00 per pound
26. A packaging plant uses a machine that can bottle 30 fluid ounces of shampoo in 12 seconds. How many fluid ounces of shampoo can be bottled per second?
- A. $\frac{2}{5}$ fluid ounces
 - B. 19 fluid ounces
 - C. $2\frac{1}{2}$ fluid ounces
 - D. 360 fluid ounces

27. Daniella's birthday will cost \$50 for 30 guests. How much will the party cost her if there are 45 guests? Explain how you got your answer.

Show all work.

Answer: _____

28. The graph shows the greatest total number of riders, y , that can be seated during x number of rides on a roller coaster.



Which equation can be used to describe this graph?

- A. $y = 12x$
- B. $y = 18x$
- C. $y = 22x$
- D. $y = 24x$

29. The function table shows the relationship between the cost and the number of ham sandwiches purchased at a deli.

Number of Sandwiches, n	Cost, C (in dollars)
1	4
2	8
3	12
4	16
5	20

Which equation shows the relationship between the cost and the number of sandwiches purchased?

- A. $C = n + 4$
- B. $C = 4n$
- C. $C = \frac{1}{4}n$
- D. $C = 4n + 4$
30. The ordered pairs (2,30), (2.5,37.5) and (3,45) are points on a line that show a proportional relationship between the total distance bicycled after a certain number of hours. What ordered pair on that graph shows the unit rate? What does the unit rate represent?
- A. (2,30); it represents a distance of 30 miles.
- B. (15,1); it represents bicycling at 15 miles per hour.
- C. (1,15); it represents bicycling at 15 miles per hour.
- D. (0,0); it represents the initial distance before bicycling.

31. The percentage discount at a store is determined using the table below.

Sale Discounts

Total Purchases	Discount
less than \$50	25%
\$50 to \$100	30%
over \$100	35%

Thomas bought 3 shirts that cost \$25 each before the discount. What was his total after the discount?

- A. \$45.00
- B. \$48.75
- C. \$52.50
- D. \$56.25