

Read each question. Then fill in the correct answer on the answer sheet provided by your teacher or on a sheet of paper.

1. Francesca typed 496 words in 8 minutes. Which of the following is a correct understanding of this rate?

A. At this rate, it takes 62 minutes for Francesca to type one word.
B. At this rate, Francesca can type 62 words in 8 minutes.
C. At this rate, Francesca can type 62 words in one minute.
D. At this rate, Francesca can type 8 words in one minute.

2. The table shows the prices of three boxes of cereal. Which box of cereal has the highest unit price?

Cereal Box size (ounces)	Price(\$)
48	5.45
32	3.95
20	3.10

F. the 20-ounce box G. the 32-ounce box
H. the 48-ounce box I. All three boxes have the same unit price.

3. A bakery sells 6 bagels for \$2.99 and 4 muffins for \$3.29. What is the total cost in dollars of 4 dozen bagels and 16 muffins, not including tax?

4. A teacher plans to buy 5 pencils for each student in her class. Pencils come in packages of 18 and cost \$1.99 per package. What other information is needed to find the cost of the pencils?

5. During a 3-hour period, 2,292 people rode the roller coaster at an amusement park. Which proportion can be used to find x , the number of people who rode the coaster during a 12-hour period, if the rate is the same?

A. $\frac{3}{2,292} = \frac{x}{12}$

B. $\frac{3}{2,292} = \frac{12}{x}$

C. $\frac{3}{x} = \frac{12}{2,292}$

D. $\frac{x}{3} = \frac{12}{2,292}$

6. A family went on a vacation and used 5.4 gallons of gasoline to travel 150 miles. How many total gallons of gasoline will they need to travel 200 more miles?
- F. 12.6 gallons G. 13.1 gallons
H. 14.3 gallons I. 16.2 gallons
7. You can drive your car 21.7 miles with one gallon of gasoline. At that rate, how many miles can you drive with 13.2 gallons of gasoline?
8. The speed limit on a highway is 70 miles per hour. About how fast is this in miles per minute?
- A. 4,200 mi/min B. 11.7 mi/min
C. 1.17 mi/min D. 0.117 mi/min

9. What is the constant rate of change shown in the table?

Time (h)	Distance (mi)
0	0
1	5
2	10
3	15

- F. $\frac{5 \text{ mi}}{1 \text{ h}}$ H. $\frac{10 \text{ mi}}{1 \text{ h}}$
G. $\frac{1 \text{ mi}}{5 \text{ h}}$ I. $\frac{1 \text{ h}}{2 \text{ mi}}$

10. At 10 A.M., the temperature was 71°F. At 3 P.M., the temperature was 86°F. Find the value of the slope and explain what it means.

11. Which of the following relationships represent a direct variation?

A.

Hours, x	1	2	3	4
Wages (\$), y	20	30	40	50

B.

Hours, x	1	2	3	4
Wages (\$), y	5	12	19	26

C.

Hours, x	1	2	3	4
Wages (\$), y	6	12	18	24

D.

Hours, x	1	2	3	4
Wages (\$), y	15	20	25	30

12. To make a punch, Anna adds 8 ounces of apple juice for every 4 ounces of orange juice. If she uses 32 ounces of apple juice, which proportion can she use to find the number of ounces of orange juice x she should add to make the punch?

F. $\frac{8}{4} = \frac{x}{32}$

H. $\frac{4}{32} = \frac{x}{8}$

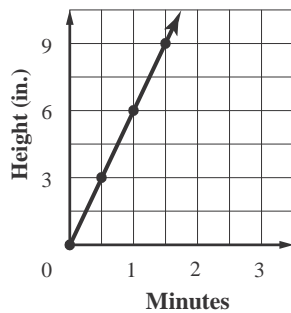
G. $\frac{8}{4} = \frac{32}{x}$

I. $\frac{8}{32} = \frac{x}{4}$

13. A dinner is served at an athletic booster fundraiser. The constant relationship between the number of people served at dinner n and the number of ounces of beef used b is shown in the table below. How many people were served if 760 ounces of beef were used?

n	5	20	150	?
b	20	80	600	760

14. The height of the water in a bathtub is shown in the graph.



Part A: Find the rate of change in inches per minute.

Part B: Explain what the points (0, 0) and (1, 6) represent.