

Read each question carefully and fill in the bubble with the letter of the correct answer or answers on your answer sheet.

1. Marco’s lemonade calls for 8 cup of water for every 2 cups of sugar.  
How many cups of sugar are used for each cup of water?

|   |   |   |   |   |   |   |   |
|---|---|---|---|---|---|---|---|
|   |   |   |   |   |   |   |   |
| - | - | - | - | - | - | - | - |
| / | / | / | / | / | / | / | / |
| . | . | . | . | . | . | . | . |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
| 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 |
| 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |
| 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 |
| 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 |

2. Ashley earns \$48.00 for working 6 hours. At this hourly rate, what should Ashley earn for working 40 hours?  
  
A. \$54.00  
B. \$88.00  
C. \$230.00  
D. \$320.00
3. Priscilla is making Valentine’s Day picture frames with foam hearts. She uses a table to determine how many hearts she needs to make the Valentines picture frames.

|        |   |    |    |    |    |   |
|--------|---|----|----|----|----|---|
| Frames | 1 | 2  | 3  | 4  | 5  | 6 |
| Hearts | 7 | 14 | 21 | 28 | 35 | ? |

What number of hearts completes the table?

- A. 38  
B. 40  
C. 42  
D. 44
4. Marco typed 320 words in 8 minutes. His paper has 1000 words. If Marco continues to type at the same rate, how many total minutes will it take for him to type his paper?  
  
A. 25  
B. 30  
C. 35  
D. 40

5. The ratio of baseball cards to football cards in Sadel's collection is 7:2. Which statements are true? Select all that apply.

- A. For every 7 cards, 2 are football cards.
- B. For every 7 baseball cards, 2 are football cards.
- C. For every 2 football cards there are 9 total cards.
- D. For every 7 total cards there are 2 baseball cards.
- E. For every 2 baseball cards there are 9 total cards.

6. This table represents a proportional relationship.

| x | y  |
|---|----|
| 3 | 12 |
| 4 | 16 |
| 5 | 20 |
| 6 | 24 |
| 7 | 28 |

Which equation describes the proportional relationship?

- A.  $y = x + 9$
- B.  $y = \frac{1}{4}x$
- C.  $y = 4x$
- D.  $y = 8$

7. A chef uses  $\frac{2}{8}$  cups of oil every  $1\frac{2}{4}$  hours. What is the rate of oil used in one hour?

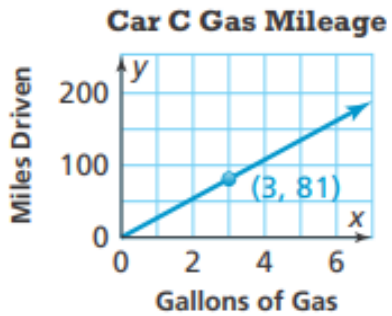
- A.  $\frac{3}{8}$  cup per hour
- B.  $\frac{1}{6}$  cup per hour
- C.  $\frac{1}{12}$  cup per hour
- D.  $\frac{1}{2}$  cup per hour

8. This table shows the total amount of time it takes a runner to run different numbers of laps around the track. At what rate, in minutes per lap, does this runner run?

| Laps | Minutes |
|------|---------|
| 3    | 7.2     |
| 5    | 12      |
| 6    | 14.4    |
| 8    | 19.2    |

- A. 5.4
- B. 5.8
- C. 5.9
- D. 6.2

9. The graph below shows how many gallons of gas are used relative to the miles driven.



What does the point (3, 81) mean in the context of the situation?

- A. Driving 3 miles uses 81 gallons of gas.
  - B. Driving 81 miles uses 3 gallons of gas.
  - C. It takes 3 hours to travel 81 miles.
  - D. 84 miles are driven per gallon of gas.
10. The following are prices for Takis at the Stop and Go convenient store. The relationship between the number of Takis sold and the price should be proportional. In the table below, which price was marked incorrectly?



| Number of Takis sold | Price   |
|----------------------|---------|
| 1                    | \$0.80  |
| 5                    | \$4.50  |
| 10                   | \$8.00  |
| 20                   | \$16.00 |

- A. \$0.80
  - B. \$4.50
  - C. \$8.00
  - D. \$16.00
11. Alexia uses  $\frac{2}{5}$  ounces of peanut butter every two days. How many ounces will she use in 8 days?
- A.  $1\frac{1}{5}$
  - B.  $1\frac{1}{3}$
  - C.  $\frac{4}{5}$
  - D.  $1\frac{2}{5}$

12. Which pair of quantities form a proportional relationship? Select all that apply.

- $\frac{1}{2}$  and  $\frac{5}{10}$
- $\frac{3}{4}$  and  $\frac{9}{12}$
- $\frac{2}{3}$  and  $\frac{1}{6}$
- $\frac{5}{6}$  and  $\frac{6}{5}$
- $\frac{2}{9}$  and  $\frac{6}{27}$

13. Mrs. Hulse determines that 7 gallons of water flow from a faucet in 4 minutes. The water continues to flow at the same rate.

Which equation can be used to represent the number of gallons,  $y$ , that flow from the faucet in  $x$  minutes?

- A.  $y = \frac{7}{4}x$
- B.  $y = \frac{4}{7}x$
- C.  $y = x + \frac{4}{7}$
- D.  $y = x + \frac{7}{4}$

14. The graph below shows the cost of buying several balloons. Select all of the true statements.



Which of the following statements are true?

- This graph represents a proportional relationship.
- This graph does not represent a proportional relationship.
- The point (6, 4) on the graph represents 4 balloons cost 6 dollars.
- The point (6, 4) on the graph represents 6 balloons cost 4 dollars.
- The linear equation  $y = \frac{2}{3}x$
- The linear equation  $y = \frac{x}{1.5}$