

7th Grade Mathematics CBA#2

1. What is the constant rate of change for $(3, 120)$, $(4, 160)$ and $(6, 240)$?

- A 40
 - B 35
 - C 50
 - D $\frac{1}{40}$
-

2. Maria babysat for 5 hours and earned \$27. What was her pay per hour?

- F \$5 per hour
 - G \$5.50 per hour
 - H \$6 per hour
 - J \$5.40 per hour
-

3. If $(20, 8)$ and $(25, 10)$ belong to a proportional relationship, what is the constant of proportionality?

- A 2.5
 - B 1.5
 - C 0.5
 - D 0.4
-

4. The number of boys in a club is 2 more than three times the number of girls. Which equation represents this relationship?

- F $b = g + 2$
- G $g = 2b + 3$
- H $b = 3g + 2$
- J $b = 3g - 2$

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5. A customer bought 8.5 pounds of apples from a local produce market. How many ounces of apples did the customer buy?
- A. 112 ounces
 - B. 128 ounces
 - C. 120 ounces
 - D. 136 ounces
-
6. Last week Diana made an 80 on her quiz. This week she made a 90. What is the percent of increase in her score?
- F 10%
 - G 12.5%
 - H 11%
 - J 15%
-
7. Amanda increased the amount of protein she eats every day from 48 g to 54 g. By what percentage did Amanda increase the amount of protein she eats?
- A 11.1%
 - B 88.9%
 - C 112.5%
 - D 12.5%

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9. A piece of furniture has a retail price of \$3,200 and is on sale at a 30% discount. How much money will be saved if the piece of furniture is purchased at the sale price?

- A \$1,400
 - B \$840
 - C \$96
 - D \$960
-

10. 18 of the 24 students in Ms. Claude's first period class have a last name with more than 8 letters. What percent of the students in that class have a last name with 8 or fewer letters?

- F 20%
 - G 6%
 - H 25%
 - J 75%
-

11. Which equation represents a proportional relationship with a constant of proportionality greater than 5?

- A $y = 3x$
- B $y = 4x$
- C $y = 6x + 2$
- D $y = 9x$

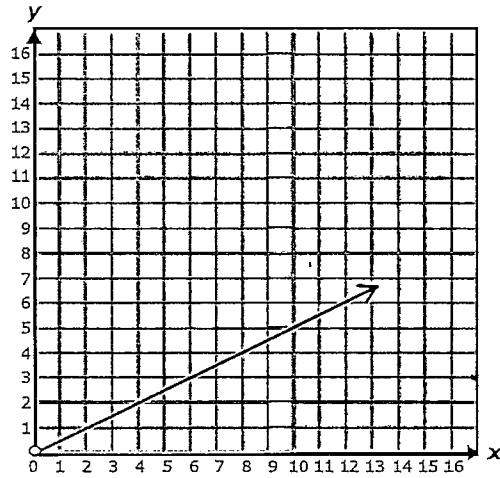
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12. Tanya pays \$20.52 for 2.7 pounds of fish. What is the price per pound of the fish?

Record your answer on the grid below. Be sure to use the correct place value.

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

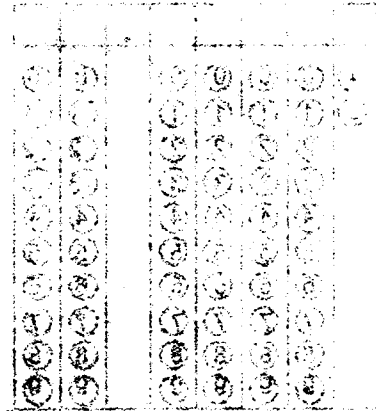
13. What constant rate of change is shown in the graph below?



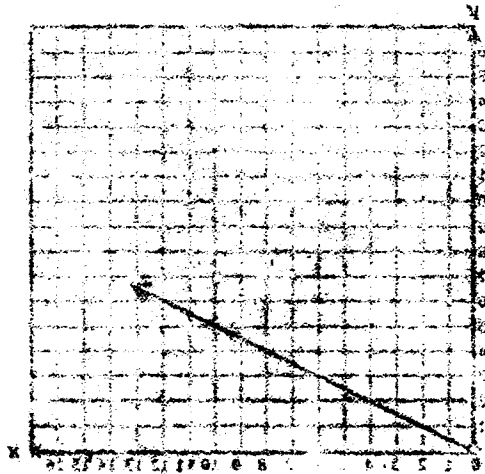
- A 2
- B 3
- C 0.5
- D 1

14. A florist received a shipment of 16 dozen roses. The original order was for 20 dozen. What percent of the order did NOT arrive?

- F 15%
- G 20%
- H 25%
- J 80%



What constant rate of change is shown in the graph below?



- A
- B
- C
- D

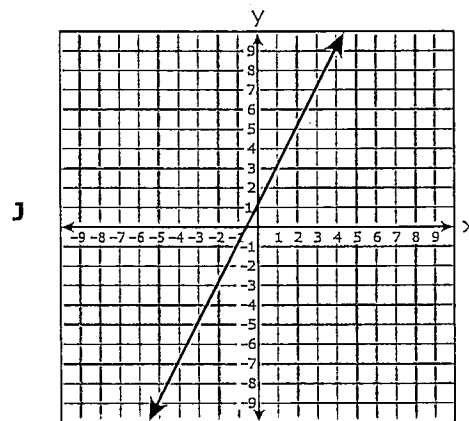
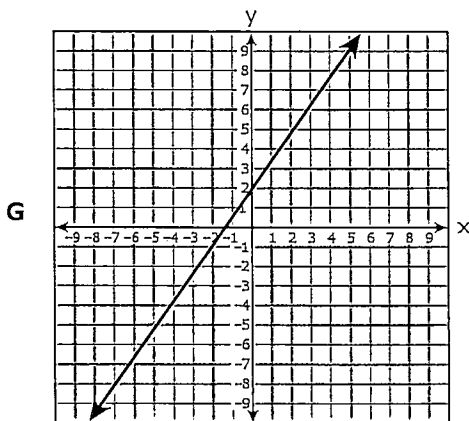
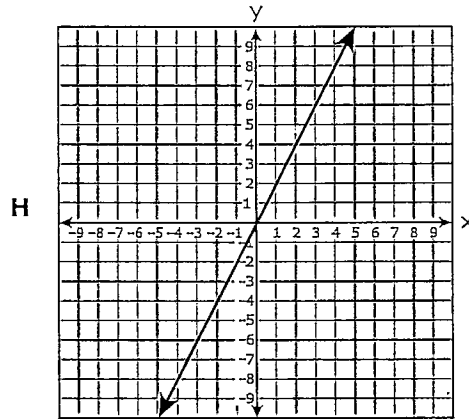
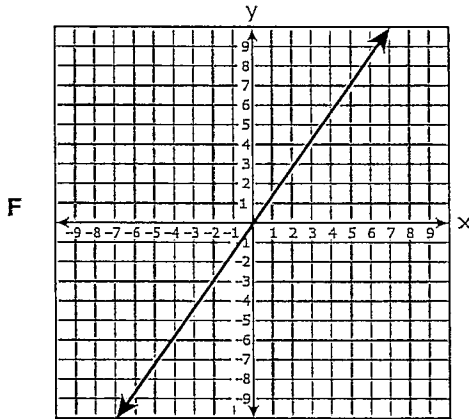


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15. Last week a certain brand of soda cost \$3.00 for a 16 ounce bottle. This week the soda is on sale for \$2.40 for a 16 ounce bottle. Which is the percent decrease in the price of the soda bottle?

- A 16%
- B 13%
- C 20%
- D 25%

16. Which graph best represents the equation $y = 1.4x + 2$?



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17. Benny averaged 58 miles per hour on his trip last week. At this rate, how many miles can he travel in 2.5 hours?
- A 135 miles
 - B 145 miles
 - C 150 miles
 - D 165 miles

18. Freida drove 20 miles in 24 minutes. At this rate, how many miles did she drive in 6 minutes?
- F 1.2 mi
 - G 7.2 mi
 - H 5 mi
 - J 2 mi

19. The ratio of red tiles to blue tiles in a bag is 4:9. If the bag contains 16 red tiles, how many blue tiles does it contain?

Record your answer on the grid below. Be sure to use the correct place value.

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

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20. Jackie pays \$7.02 for 18 pounds of bananas. What is the price per pound of the bananas?

F \$0.41

G \$0.39

H \$0.38

J \$0.42

