

Graphing Equations and Inequalities

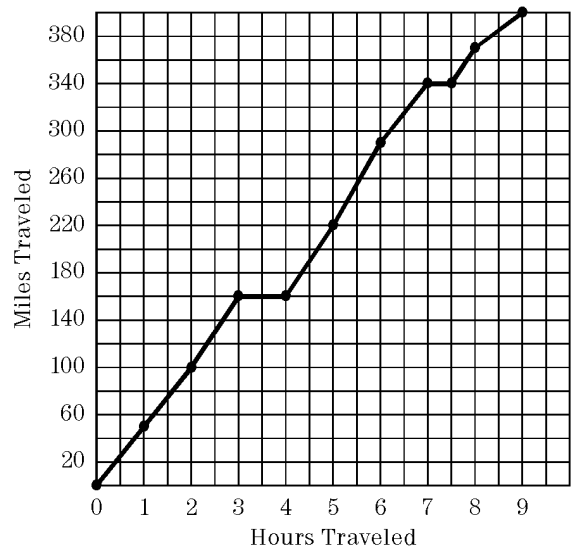
Name: _____

Date: _____

1. A math class would like to make a graph representing the relationship between time of year and rainfall. Which of the two variables would be placed on the x -axis, time of year or rainfall? Support your answer with an explanation.

2. A math class would like to make a graph representing the relationship between time and stock closing prices. Which of the two variables would be placed on the x -axis, time or closing price? Support your answer with an explanation.

3. Amanda traveled the 400 miles to her grandmother's house with her parents. The trip took 9 hours. They left at 10:00 am and arrived at 7:00 pm. They stopped for lunch and then later for ice cream. The graph shows how many miles they traveled over the 9-hour period.



How long did Amanda and her parents stop for lunch?

- A. 20 min B. 40 min
C. 60 min D. 90 min

4. How long did Amanda and her parents stop for ice cream?

- A. 15 minutes B. 30 minutes
C. 45 minutes D. 1 hour

5. Bobby, Johnny, and Archibald ordered an extra-large pizza for dinner. Bobby ate the fewest pizza slices. Johnny ate 5 slices more than Bobby. Archibald ate as many slices as Bobby and Johnny combined.

Which of these tables could represent the number of pizza slices the boys ate?

A.

<i>Name</i>	<i>Slices eaten</i>
Bobby	4
Johnny	6
Archibald	9

B.

<i>Name</i>	<i>Slices eaten</i>
Bobby	3
Johnny	8
Archibald	11

C.

<i>Name</i>	<i>Slices eaten</i>
Bobby	7
Johnny	12
Archibald	5

D.

<i>Name</i>	<i>Slices eaten</i>
Bobby	15
Johnny	10
Archibald	5

6. Margie and her two friends, Roxy and Velma, earned money selling magazine subscriptions. Margie earned the most. Roxy earned \$10 less than Margie, and Velma earned half as much as Roxy.

Which of these tables could represent the girls' earnings?

A.

<i>name</i>	<i>amount earned</i>
Margie	\$40
Roxy	\$10
Velma	\$20

B.

<i>name</i>	<i>amount earned</i>
Margie	\$50
Roxy	\$20
Velma	\$40

C.

<i>name</i>	<i>amount earned</i>
Margie	\$80
Roxy	\$90
Velma	\$45

D.

<i>name</i>	<i>amount earned</i>
Margie	\$60
Roxy	\$50
Velma	\$25

7. Tiffany has \$12 to buy bananas for the ice cream social. Each pound of bananas costs \$0.35. Which table best describes the amount of money m Tiffany has left after buying b bananas?

A.

b	m
0	\$12.00
1	\$11.65
2	\$11.40
4	\$10.70

B.

b	m
1	\$11.65
2	\$11.30
4	\$10.95
5	\$10.60

C.

b	m
0	\$12.00
2	\$11.30
3	\$10.95
5	\$10.25

D.

b	m
1	\$12.00
2	\$11.30
3	\$10.95
5	\$10.25

8. Amanda has a \$50 gift certificate for her favorite clothing store. Each item of clothing that she buys is \$8.50. Which table best describes y , the balance remaining on the gift certificate, after Amanda buys x items of clothing?

A.

x	y
0	\$50.00
1	\$41.50
3	\$33.00
4	\$16.00

B.

x	y
0	\$50.00
1	\$41.50
2	\$33.00
3	\$16.00

C.

x	y
0	\$50.00
1	\$41.50
2	\$33.00
4	\$16.00

D.

x	y
1	\$50.00
2	\$41.50
3	\$33.00
4	\$16.00

9. Which of the following statements are always true?

- I. a dependent variable may take on the same value for 2 different data points
- II. a independent variable is represented on the horizontal axis of a graph
- III. a independent variable is determined from the dependent variable

- A. I only B. I and II only
C. II and III only D. I, II and III

10. Which of the following statements are always true?

- I. a dependent variable is determined from the independent variable
- II. a dependent variable is represented on the vertical axis of a graph
- III. a dependent variable represents the frequency of the independent variable

- A. I only B. I and II only
C. II and III only D. I, II and III

11. Which of the following are considered dependent events?

- A. Choosing pancakes for breakfast, and a salad for lunch.
- B. Taking a cookie from a box, eating it, and taking another cookie.
- C. Tossing a coin and throwing a die.
- D. Drawing a marble from a bag, replacing it, and drawing another one.

12. Which of the following are considered dependent events?

- A. Tossing a coin and getting heads, then tossing it a second time and getting heads again
- B. Drawing a red ball from a bag, replacing it and drawing a blue one.
- C. Choosing a hamburger for lunch, and a pizza for dinner
- D. Drawing a ticket out of a jar, not replacing it, and drawing another ticket

13. Which of the following sets of events are considered independent events?

- A. Taking a jellybean from a jar, eating it, and then choosing another.
- B. Spending time in batting practice and hitting a home run.
- C. Drawing an ace from a deck of cards, not replacing it, and then drawing another card.
- D. Tossing a coin and getting heads, then tossing it a second time and getting heads again.

14. Which of the following sets of events are considered independent events?

- A. Spinning an arrow on a spinner and flipping a coin.
- B. Taking a doughnut out of a box, eating it, and then taking another.
- C. Taking cooking lessons and cooking a gourmet meal.
- D. Drawing a marble from a bag, not replacing it, and then drawing another marble.

15. In a linear relationship, the y variable is dependant on the x variable. In other words, what happens to the y variable depends on what happens to the x variable. Which of the following x and y variables are *not* correct according to this rule?

- A. x = number of family members going out to dinner, y = total cost of the dinner
- B. x = number of grocery items purchased, y = number of grocery items on sale
- C. x = number of books purchased, y = total cost of bookstore bill
- D. x = number of magazines sold, y = profit

16. In a linear relationship, the y variable is dependant on the x variable. In other words, what happens to the y variable depends on what happens to the x variable. Which of the following x and y variables are *not* correct according to this rule?

- A. x = number of grocery items purchased, y = total cost of grocery bill
- B. x = number of candy bars sold, y = profit
- C. x = number of family members attending a trip, y = total cost of family vacation
- D. x = money made from working, y = number of hours worked

17. Lemon Car Rental charges a flat fee of \$35 plus 65¢ per mile to rent a car. To determine the cost for renting a car from Lemon Car Rental, use the equation $y = 35 + 0.65x$. What are the independent and dependent quantities, respectively?

- A. Cost, Miles
- B. Miles, Weeks
- C. Flat Fee, Cost
- D. Miles, Cost

18. The table shows the distance from Charlotte, NC, to several cities and the cost of driving to those cities. Name the independent and dependent quantities respectively.

City	Distance	Cost
Boston, MA	841 mi	\$200.92
San Francisco, CA	2742 mi	\$429.04
New York, NY	636 mi	\$176.32
Cheyenne, WY	1624 mi	\$294.88
Houston, TX	1042 mi	\$225.04
Miami, FL	721 mi	\$186.52

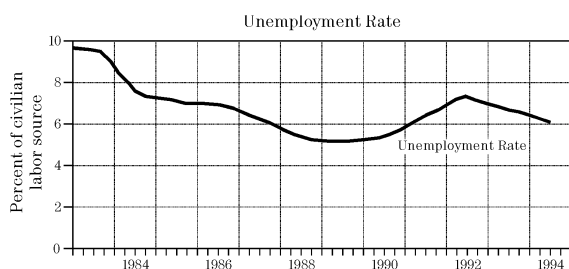
- A. Distance, Cost
- B. City, Distance
- C. Distance, City
- D. Cost, Distance

19. The table shows the average temperature and latitude for several cities. Name the independent and dependent quantities respectively.

City	Avg. Temp.	Latitude
Boston, MA	47.3°	42.39°N
Charlotte, NC	60.0°	35.14°N
Jacksonville, FL	68.0°	30.20°N
New York, NY	54.5°	40.43°N
Portland, ME	45.0°	43.39°N
Miami, FL	75.6°	25.46°N

- A. Temperature, Latitude
- B. Latitude, City
- C. Temperature, City
- D. Latitude, Temperature

20. Name the independent and dependent quantities respectively.

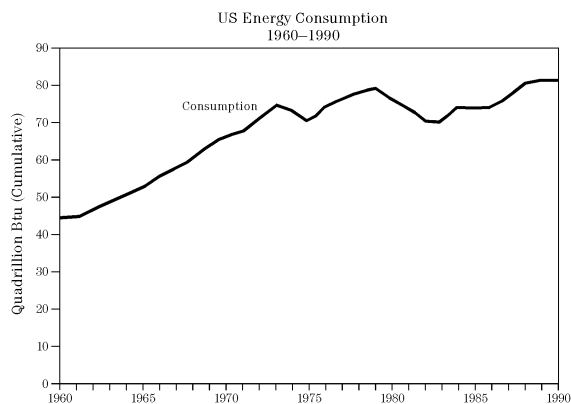


- A. Unemployment, Year
- B. Year, Percent Unemployed
- C. Labor Source, Year
- D. Year, Labor Source

21. Name the independent and dependent quantities respectively.

- A. Percent Unemployed, Year
- B. Year, Percent Unemployed
- C. Percent Unemployed, Year
- D. Year, Labor Source

22. Name the independent and dependent quantities respectively.

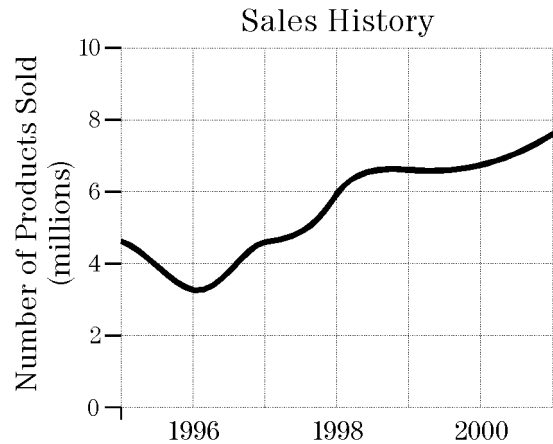


- A. Year, Country
- B. Year, Consumption
- C. Country, Consumption
- D. Consumption, Country

23. A telephone call from Richmond to Monterey costs 25¢ for the first minute and 10¢ for each additional minute. The equation $y = 0.25 + 0.10x$ can be used to determine the cost of any phone call between these two cities. What are the independent and dependent quantities, respectively?

- A. Minutes, Cost B. Telephone, Cost
C. Cost, Minutes D. Telephone, Minutes

24. Name the independent and dependent quantities respectively.



- A. Year, Sales History B. Number Sold, Year
C. Sales History, Year D. Year, Number Sold

Graphing Equations and Inequalities 3/16/2018

1.
 Answer: time of year
 Objective: 6.EE.9

2.
 Answer: time
 Objective: 6.EE.9

3.
 Answer: C
 Objective: 6.EE.9

4.
 Answer: B
 Objective: 6.EE.9

5.
 Answer: B
 Objective: 6.EE.9

6.
 Answer: D
 Objective: 6.EE.9

7.
 Answer: C
 Objective: 6.EE.9

8.
 Answer: C
 Objective: 6.EE.9

9.
 Answer: B
 Objective: 6.EE.9

10.
 Answer: B
 Objective: 6.EE.9

11.
 Answer: B
 Objective: 6.EE.9

12.
 Answer: D
 Objective: 6.EE.9

13.
 Answer: D
 Objective: 6.EE.9

14.
 Answer: A
 Objective: 6.EE.9

15.
 Answer: B
 Objective: 6.EE.9

16.
 Answer: D
 Objective: 6.EE.9

17.
 Answer: D
 Objective: 6.EE.9

18.
 Answer: A
 Objective: 6.EE.9

19.
 Answer: D
 Objective: 6.EE.9

20.
 Answer: B
 Objective: 6.EE.9

21.
 Answer: B
 Objective: 6.EE.9

22.
 Answer: B
 Objective: 6.EE.9

23.
 Answer: A
 Objective: 6.EE.9

24.
 Answer: D
 Objective: 6.EE.9