

## Quiz 7 on Graphs, Signed Numbers, Probability, Statistics, and Measurement

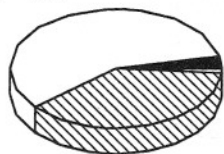
- 1) According to this chart, CD sales units were about   B   of total sales.

- A) 60%      B) 40%  
C) 20%      D) 10%

**Note:** The answer to this question should be read directly from the graph.

1990 Recording Media Sales  
Sales in millions of units

Cassettes 442



Records 27

Music Videos 9

CD's 288

- 2) Music video sales were   C   units.

- A) 9    B) 90,000    C) 9,000,000    D) 9,000,000,000

3)  $7 + (-9) = -2$

4)  $-6 + (-12) = -18$

5)  $8 - (-6) = 14$

6)  $-4 - (+9) = -13$

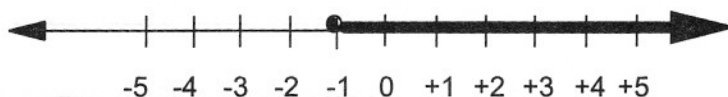
7)  $(-8)(-4) = 32$

8)  $66 \div -22 = -3$

9)  $5 \times -9 = -45$

10)  $-42 \div -7 = 6$

- 11) What inequality does this graph represent?   C



A)  $x > -1$     B)  $x < -1$

C)  $x \geq -1$     D)  $x \leq -1$

Name the coordinates of each point.

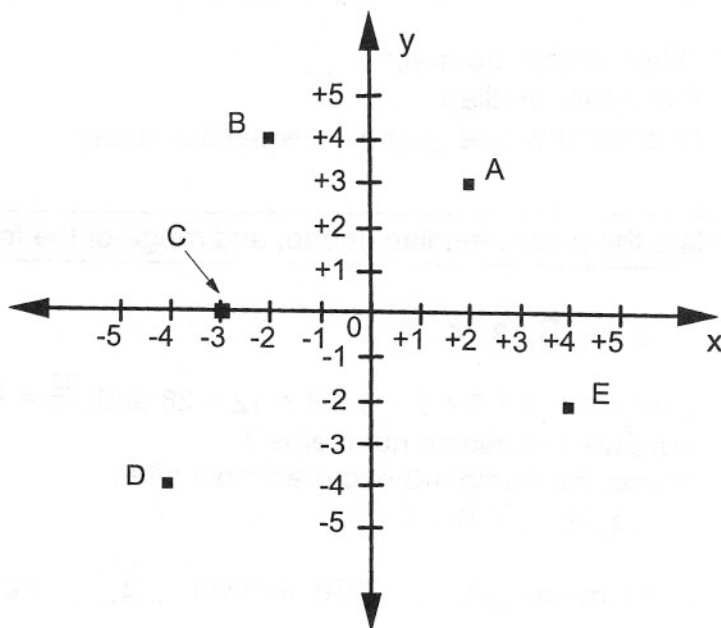
- 12) Point A ( 2 , 3 )

- 13) Point B ( -2 , 4 )

- 14) Point C ( -3 , 0 )

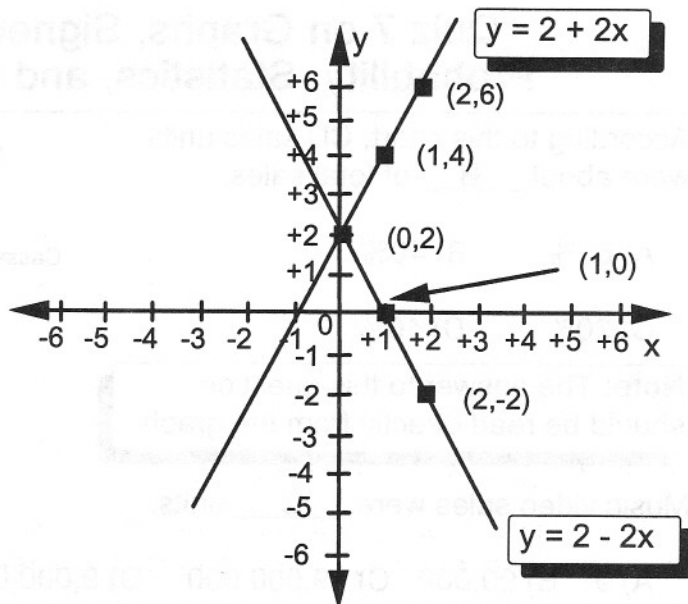
- 15) Point D ( -4 , -4 )

- 16) Point E ( 4 , -2 )



17) Graph  $y = 2 + 2x$

x	$2 + 2x$	y
0	$2 + 2(0)$	2
1	$2 + 2(1)$	4
2	$2 + 2(2)$	6



18) Graph  $y = 2 - 2x$

x	$2 - 2x$	y
0	$2 - 2(0)$	2
1	$2 - 2(1)$	0
2	$2 - 2(2)$	-2



19) The slope of  $y = 2 + 2x$  is 2.



20) The slope of  $y = 2 - 2x$  is -2.

21A) How many people scored between 71 and 80 on the test data summarized by this table? 3

Scores	Frequency
51 - 60	1
61 - 70	2
71 - 80	3
81 - 90	2
91 - 100	1



21B) Because this data is balanced, it is said to be normal.



21C) When data is normal, the mean, median, and mode will be equal. (equal/not equal)

Calculate the mean, median, mode, and range of the following data.

1, 2, 3, **3**, 3, 4, 12

**mean:**  $1 + 2 + 3 + 3 + 3 + 4 + 12 = 28$  and  $\frac{28}{7} = 4$

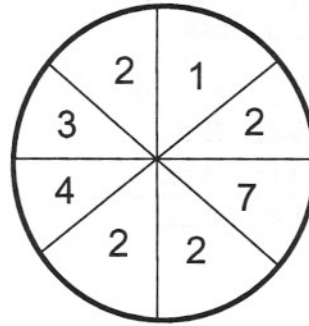
**median:** the middle number is 3

**mode:** the number 3 occurred most often

**range:**  $H - L = 12 - 1 = 11$

22A) mean 4    22B) median 3    22C) mode 3    22D) range 11

23) What is the probability of hitting a two on this dart board?



Answer  $\frac{4}{8} = 50\%$

One of the 52 cards in a deck is the queen of hearts.

24) Which of the following represents the probability of drawing a queen of hearts from a deck of cards?

A)  $\frac{4}{52}$

B)  $\frac{1}{4}$

C) 25%

D)  $\frac{1}{52}$

Answer D or 1/52

25) If all 52 cards of a deck were put into a hat, how often would you expect the queen of hearts to be drawn?

A) often

C) usually within three tries

B) seldom

D) always within 10 tries

Answer B

26) A die is a cube with the numbers 1 - 6 on each side.

A) The probability of throwing a die and getting a five is  $\frac{1}{6}$  .

B) The probability of throwing the die twice and getting successive fives is  $\frac{1}{36}$  .

$$\frac{1}{6} \times \frac{1}{6} = \frac{1}{36}$$

C) The probability of throwing the die 3 times and getting 3 successive fives is  $\frac{1}{216}$  .

$$\frac{1}{6} \times \frac{1}{6} \times \frac{1}{6} = \frac{1}{216}$$

27) What is the probability of flipping a coin twice and getting a head both times?

$$\frac{1}{2} \times \frac{1}{2} = \frac{1}{4} \text{ or } 25\%$$

28) Subtract 3 pounds 8 ounces from 5 pounds 2 ounces.

$$\begin{array}{r} 4 \quad 16 + 2 = 18 \\ \cancel{5 \text{ lb.}} \quad \cancel{2 \text{ oz.}} \\ - 3 \text{ lb.} \quad 8 \text{ oz.} \\ \hline 1 \text{ lb.} \quad 10 \text{ oz.} \end{array}$$

29) Subtract 4 feet 6 inches from 8 feet 3 inches.

$$\begin{array}{r} 7 \quad 3 + 12 = 15 \\ \cancel{8 \text{ ft.}} \quad \cancel{3 \text{ in.}} \\ - 4 \text{ ft.} \quad 6 \text{ in.} \\ \hline 3 \text{ ft.} \quad 9 \text{ in.} \end{array}$$

30) Change 4.5 miles to feet.

$$\frac{4.5 \text{ mile}}{1 \text{ miles}} = \frac{x}{5,280 \text{ feet}}$$

$$4.5(5,280) = x$$

$$x = 23,760 \text{ feet}$$

31) Peter left his house at 10:45 a.m. and arrived at work at 1:51 p.m. What was Peter's traveling time?

$$\begin{array}{r} 12:00 \text{ noon} \\ - 10:45 \text{ a.m.} \\ \hline 1 \text{ hr. } 15 \text{ min.} \end{array}$$

$$\begin{array}{r} 1:51 \text{ p.m.} \\ - 12:00 \text{ noon} \\ \hline 1 \text{ hr. } 51 \text{ min.} \end{array}$$

$$\begin{array}{r} 1 \text{ hr. } 15 \text{ min.} \\ + 1 \text{ hr. } 51 \text{ min.} \\ \hline 2 \text{ hrs. } 66 \text{ min.} = 3 \text{ hrs. } 6 \text{ min.} \end{array}$$

- A. 3 hours and 66 minutes
- B. 3 hours and 6 minutes
- C. 4 hours and 6 minutes
- D. 4 hours and 36 minutes

Answer B

32) Change 37 grams to milligrams. 37,000 mg

33) Change 1,500 millimeters to centimeters. 150 cm

34) Change 12 kilograms to milligrams. 12,000,000 mg