1.   Find the mean, median, and mode of the data set:    10, 11, 15, 12, 11, 13, 13, 10, 9, 11

Mean_____                    Median_____                    Mode_____

2.   Find the value of x:                          3.  Find the value of x:
     5, 12, x, 17:  The mean is 10.                    32, 18, 20, x:  The median is 24.

4. a)  Find the five number summary:  28, 33, 56, 42, 35, 46, 33, 40
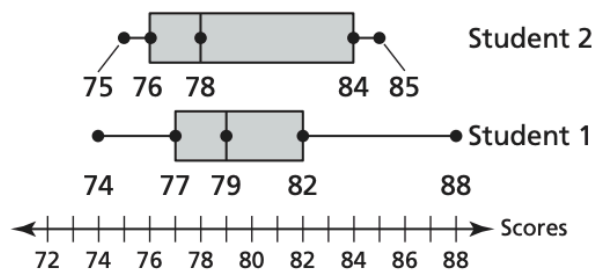Min:
Q1:
Med:
Q3:
Max:

b)  Find the IQR

5.  Use the given 5 number summary values to make a box and whisker plot:  3,7,12,13,15

6.

The double box-and-whisker plot represents the quiz scores of two students
over the course of the year in their algebra class.

a.  Identify the shape of
    each distribution.

b.  Which student was more
    consistent on his or her
    quiz scores? Explain.

c.  Which student has the single best quiz score?

7.

A grocery store cashes checks for customers. The amounts cashed for one week are shown in the table.

a. Display the data in a histogram using six intervals beginning with 1-25.

| Check Amounts (dollars) | | | |
|---|---|---|---|
| 65 | 15 | 50 | 65 |
| 40 | 25 | 35 | 60 |
| 10 | 45 | 60 | 30 |
| 100 | 125 | 75 | 25 |
| 75 | 40 | 90 | 75 |
| 75 | 5 | 50 | 50 |
| 35 | 30 | 140 | 60 |

| Check amounts | Frequency |
|---|---|
| 1 - 25 | |
| 26 - 50 | |
| | |
| | |
| | |
| | |

8. Using SOCS, describe the data from above:

Shape:

Outliers:

Center:

Spread:

9. Use the survey results to make a two way table below. Include the marginal frequency.

Bob asked 146 7th and 8th graders "Who is your favorite superhero?"
- Of the 60 7th graders surveyed, 20 chose Hulk
- 12 7th ad 22 8th graders choose Wonder Women
- 42 total students choose Hulk
- 12 8th graders chose Thor
- 10 7th graders chose Batman
-

Favorite Superhero

| | | Hulk | Wonder Woman | Thor | Batman | Total |
|---|---|---|---|---|---|---|
| Grade | 7th grade | | | | | |
| | 8th grade | | | | | |
| | Total | | | | | |

10. Use the relative frequency table to answer the given questions below it.

Relative Frequency Table

Study for Test

|  |  | Yes | No | Maybe | Total |
|---|---|---|---|---|---|
| Type of students | A Students | .269 | .028 | .009 | .307 |
|  | B Students | .211 | .076 | .057 | .346 |
|  | C Students | .134 | .115 | .096 | .346 |
|  | Total | .615 | .221 | .163 | 1 |

When answering these questions, be aware that they are conditional.

a) Given a student is a B student, what percent said "No" to studying?

b) If you randomly selected a student who said "Yes" to studying, what percent are B students?

c) If you randomly selected a student that was a C student, what percent said "Maybe" to studying?

11. Tell whether the data are qualitative or quantitative. Circle your answer.

a) How many pairs of shoes you own.   qualitative or quantitative

b) Favorite pro basketball team:  qualitative or quantitative

c) Size shirt you wear:  qualitative or quantitative

d) Average temperatures in a city:   qualitative or quantitative

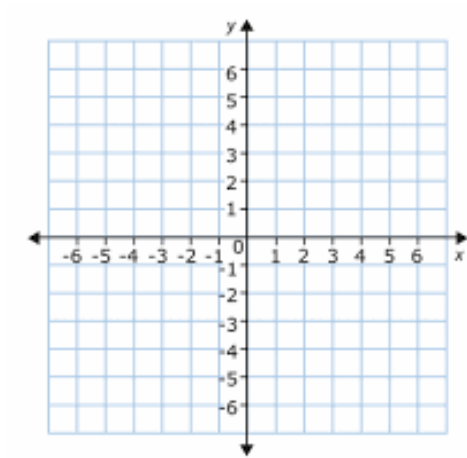Solve:

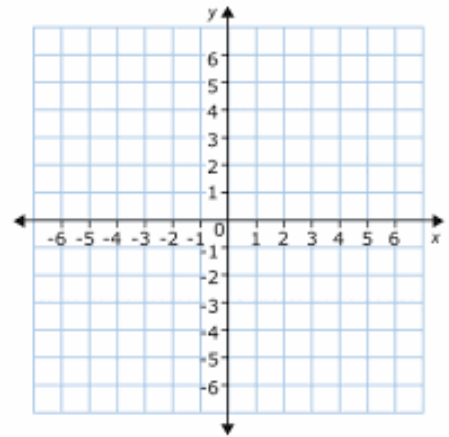12.  -4(2x + 6) - 12 = 4

13.  |w| = - 7

14.  -1 ≤ -2d + 7 ≤ 9

15.  $\frac{r}{4} < -5 \ or \ -2r - 7 \leq 3$

Graph the equation of the line.

16.  y = -⅔ x + 4

17.  4y -4 = 3x

Use the given information to write the equation in slope-intercept form.  (y = mx + b)

18.  Passes through  ( -3, 5) (0, -1)

19.  Slope of ⅚ and goes through  (3, -4)

20.  Graph y = 4$^x$ + 3