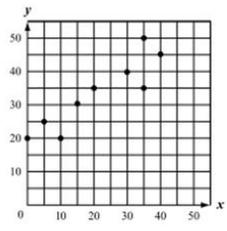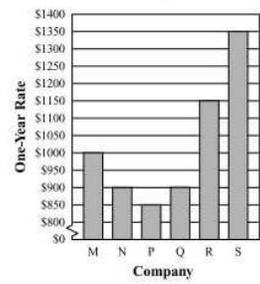Name:_____

Data Analysis

Directions

Show all of your work.   Do NOT use a calculator for this section.

Be sure to answer all questions – accuracy counts. Work **independently.**

1	Which of the following equations best represents the line of best fit for the scatterplot below? A. $y = \frac{2}{3}x + 20$ B. $y = \frac{3}{2}x + 20$ C. $y = -\frac{2}{3}x + 20$ D. $y = -\frac{3}{2}x + 20$
2	The bar graph below shows the one-year rate quotes Sanjay received from different car insurance companies. **Car Insurance Rate Quotes** What is the mean one-year rate for the quotes Sanjay received? A. $875 B. $900 C. $950 D. $1025
3	The table below shows the monthly rents charged for different apartments. **Apartment Rents** What is the median monthly rent charged for the apartments? A. $900 B. $925 C. $938 D. $975

Apartment Rents table:

Apartment	Monthly Rent
1A	$ 750
1B	$ 800
1C	$ 900
1D	$1000
2A	$ 950
2B	$1250
2C	$ 950
2D	$ 900

Name:_____

4	The list in the box below shows the ticket prices for ten concerts scheduled at a stadium.

$32, $36, $65, $30, $46, $19, $46, $40, $70, $16

A ticket price of $70 is added to the list. Which of the following measures of the data will change?

    A. range

    B. median

    C. maximum

    D. minimum

---

5   What is the median of the data set below?

30, 37, 19, 42, 33, 37

    A. 31

    B. 33

    C. 35

    D. 37

6   Which of the following scatterplots is most likely to have a line of best fit represented by the equation below?

$$y = \frac{1}{2}x$$

A.

C.

B.

D.

7	A class of students took a mathematics test. The table below shows their scores and the number of students who received each score.

Number of Students Who Received Each Score

Score	Number of Students
23	3
26	5
27	5
28	2
30	7
33	2
34	1

What is the median of the scores for the entire class of students?

A. 26

B. 27

C. 29

D. 30

| 8	The numbers of pages that Millie read on each of the first seven days after she got a new book are shown in the box below.

> 15, 20, 15, 45, 30, 35, 15

What is the median number of pages Millie read per day for the seven days?

A. 15

B. 20

C. 25

D. 45

| 9 | Cynthia and her father planted a tree in their front yard 8 years ago. The tree was 2 meters in height when it was planted. The scatterplot below shows how the height of the tree increased each year. |
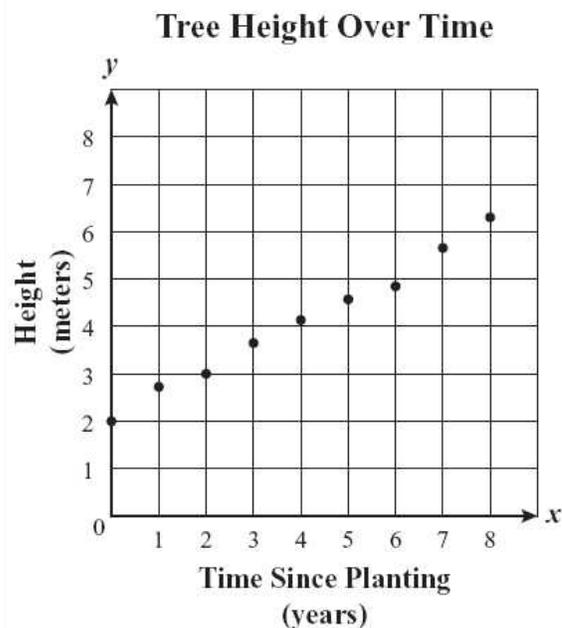
Tree Height Over Time

**Time Since Planting (years)**

Which of the following most closely approximates the equation of the line of best fit for the data points in the scatterplot?

    A. $y = -2x + 2$

    B. $y = 2x + 2$

    C. $y = -\frac{1}{2}x + 2$

    D. $y = \frac{1}{2}x + 2$

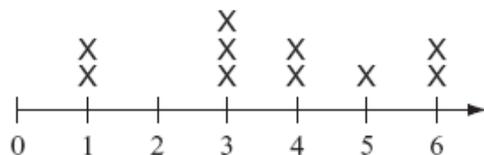| 10	Sharon took 24 nighttime photographs. The exposure times, in seconds, for her photographs are represented in the stem-and-leaf plot below.

Exposure Times (in seconds)

```
1 | 8 9 9
2 | 0 2 3 3 4 4 4 6 8 9 9
3 | 0 1 2 4 5 6 7
4 | 2 3
```

Key
3 │ 2 represents 32
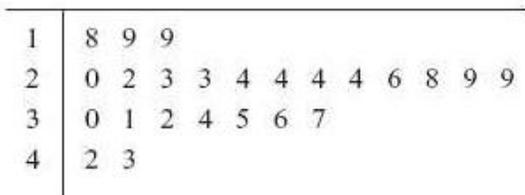
What is the median exposure time for her photographs?

A. 24 seconds

B. 25 seconds

C. 27 seconds

D. 28 seconds

11	Shantel made the line plot below to show the numbers of points she and the other members of her team scored.

```
                  X
      X           X     X           X
      X           X     X     X     X
   ───┼─────┼─────┼─────┼─────┼─────┼─────┼──▶
      0     1     2     3     4     5     6
```
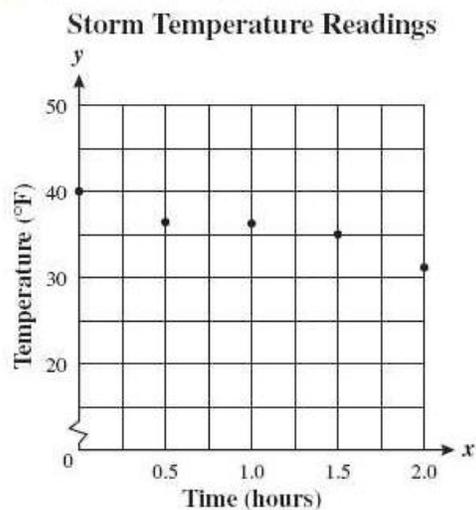
Numbers of Points Scored by Team Members

Exactly three players scored more points than Shantel. Based on the line plot, what is the number of points that Shantel scored?

A. 2

B. 3

C. 4

D. 5

| 12 | During the beginning of a recent storm, a weather broadcaster took temperature readings every half hour and plotted the data on the scatterplot below. |

Storm Temperature Readings

Which of the following most closely approximates the equation of the line of best fit for the data?

    A. $y = -40x + 40$

    B. $y = -3x + 40$

    C. $y = 40x + 40$

    D. $y = 3x + 40$

| 12 | The heights, in inches, of the members of a soccer team are listed below. |

66, 61, 71, 62, 64, 70, 64, 63, 72, 68

After a new member joined the team, the median height of all the members was 66 inches.

Which of the following could be the height, in inches, of the new member?

    A. 68

    B. 65

    C. 64

    D. 61

| 14 | The number of points scored by the Springdale Hawks in each of their last ten basketball games is shown in the stem-and-leaf plot below. |

Number of Points Scored per Game

```
2 | 6
3 | 2 4 8 9
4 | 5
5 |
6 | 0 3 3
7 | 0
```

Key
3 $\mid$ 2 represents 32

What is the median number of points scored per game by the Hawks?

A. 42

B. 44

C. 45

D. 47

| 15 | Allen surveyed the 18 students in his class about the number of DVDs each of them rented last week. The table below shows how many students rented each number of DVDs. For example, 10 students rented 1 DVD each. |

Number of Students Renting Each Number of DVDs

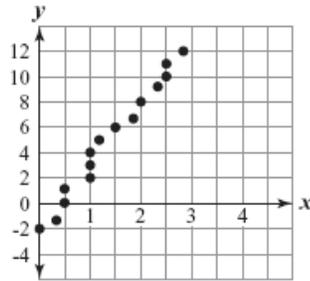| Number of DVDs Rented	Number of Students
1	10
3	6
4	2

What is the mean number of DVDs rented per student?

A. 1

B. 2

C. 3

D. 6

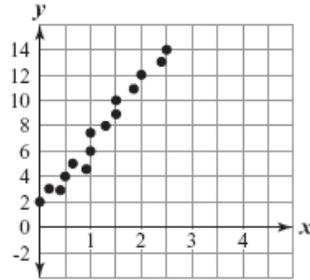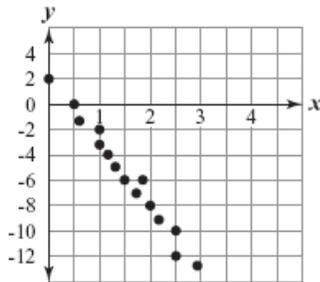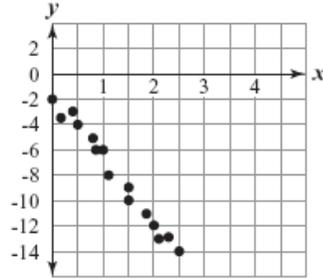| 16 | Which of the following scatterplots is most likely to have a line of best fit represented by the equation below? |

$$y = -5x + 2$$

A.

B.

C.

D.

| 17 | Cosmic Bowling Center has 100 bowling balls, and their weights range from 8 through 16 pounds. The frequency table below shows the number of balls by weight. |

Number of Bowling Balls by Weight

Weight (pounds)	8	9	10	11	12	13	14	15	16
Number of Balls	13	4	9	3	10	2	18	17	24

What is the median weight per ball for the 100 bowling balls?

A. 11 pounds

B. 12 pounds

C. 13 pounds

D. 14 pounds