

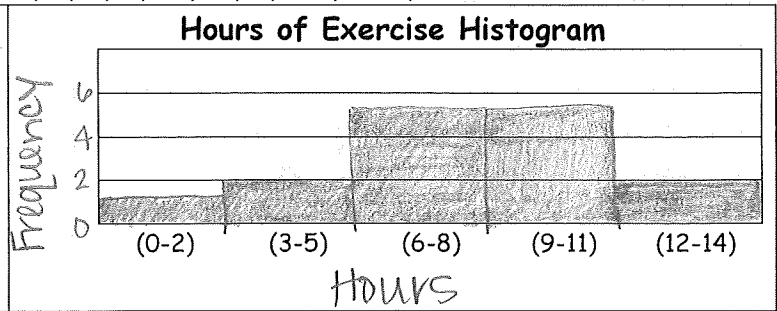
DATA ANALYSIS (DAY 3) NOTES

EXAMPLES

1. Fifteen people were asked to state the number of hours they exercise in a seven day period. The results of the survey are listed below. Make a frequency table and histogram to display the data.

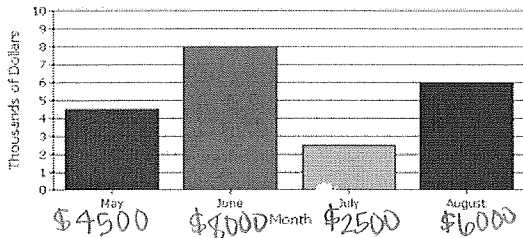
8, 2, 4, 7.5, 10, 11, 5, 6, 8, 12, 11, 9, 6.5, 10.5, 13

Hours of Exercise	Talley	Frequency
0 - 2		1
3 - 5		2
6 - 8		5
9 - 11		5
12 - 14		2



Based on the information displayed in the histogram, what conclusions can be made?
Out of the fifteen people surveyed, 12 people were active for at least 6 hours a week!

Summer Sales

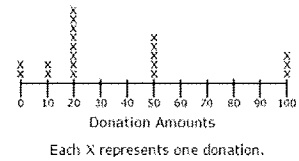


A company made a bar graph showing the amount of sales for each month in thousands of dollars. Which of the following is closest to the range of sales for the four-month period?

- A. \$2,000
- B. \$5,500
- C. \$1,500
- D. \$3,500

8000 - 2500

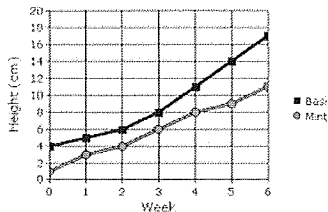
8. The following line plot shows the number of donations received during a charity drive. What is the mode of the data in the graph?



- A. \$100.00
- B. \$10.00
- C. \$50.00
- D. \$20.00

22. Halle planted mint and basil plants in her herb garden. She measured the height of each herb plant at the end of each week for six weeks. The results are shown in the line graph below.

Plant Growth



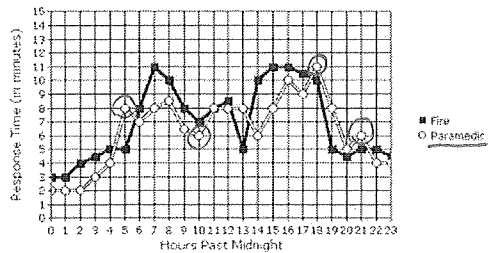
What is the difference in the ranges for both herbs during the six weeks shown in the graph?

- A. 3 cm
- B. 5 cm
- C. 6 cm
- D. 2 cm

*Basil 17-4
 Mint 11-1
 13cm - 10cm = 3cm*

23. In an effort to improve emergency response times, a city employee made the following line graph. The graph represents the average response times of the fire department and the paramedics of the city throughout different times of the day for the previous year.

Response Times

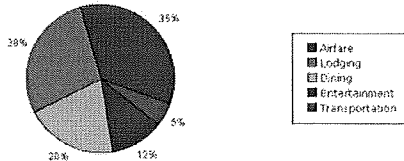


Using the graph, predict at which of the following times on a weekday that the paramedics will have a faster response time.

- A. 6 PM
- B. 5 AM
- C. 9 PM
- D. 10 AM

faster in both time & faster than the fire department

Vacation Budget



A travel agent made the given circle graph. The graph represents the typical vacation budget of clients to a particular destination for the previous year. If one of the agent's clients chooses to go to this destination this year, which category could they expect to be their smallest expenditure?

- A. Entertainment
- B. Dining
- C. Transportation
- D. Lodging

27. A local fundraiser collected donations in the following amounts: \$25, \$50, \$100, \$150, \$200, and \$250. Based on the table below, what is the mode of the donations collected?

Donations						
Amount	\$25	\$50	\$100	\$150	\$200	\$250
Number of People	49	21	14	8	4	2

- A. \$50.00
- B. \$25.00
- C. \$62.00
- D. \$100.00

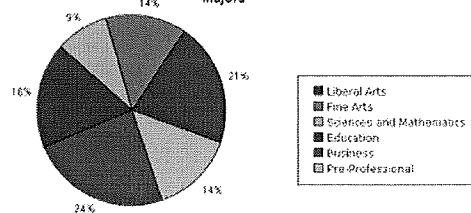
12. An employer collected data from its employees on whether or not they stay up late and whether or not they drink coffee. The two-way table below shows the data collected.

	Stays Up Late	Does Not Stay Up Late	Total
Drinks Coffee	18	9	27
Does Not Drink Coffee	6	17	23
Total	24	26	50

Which correlation does the two-way table suggest?

- A. Those who stay up late tend not to drink coffee.
- B. Those who do not stay up late tend not to drink coffee.
- C. None of the correlations listed are correct.
- D. Those who do not stay up late tend to drink coffee.

Majors



A university employee made the given circle graph that shows the number of majors by department for the previous year. If the university is expecting 700 incoming freshman this year, use the graph to predict the number of freshman who will be majoring in either science or mathematics.

- A. 168
- B. 630
- C. 126
- D. 63

90% of 700
0.09 · 700

40. Geoff asked a group of people about their age and their monthly income. His results are shown in the table below.

Age (years)	Monthly Income (dollars)
19	1,500
35	1,900
28	2,200
46	3,400
28	2,600
53	4,900
37	3,400

246
7

What is the approximate mean of the ages?

- A. 35 years
- B. 31.1 years
- C. 35.1 years
- D. 28 years

13. The IT department at a company surveyed 320 employees to find out if they use a desktop or a laptop at home, and if they use operating system A or operating system B.

The results of the survey showed that operating system A is the most popular, and a laptop was the most popular type of computer used by employees at home.

Which two-way table is a possible representation of the information collected from the survey?

total 320

	Desktop	Laptop
Operating System A	87	118
Operating System B	59	62

W.

	Desktop	Laptop
Operating System A	112	87
Operating System B	59	62

X.

	Desktop	Laptop
Operating System A	67	92
Operating System B	79	82

Y.

	Desktop	Laptop
Operating System A	87	112
Operating System B	59	62

Z.

total 320

Twenty-five students were asked whether or not they like chocolate topping or caramel topping on their vanilla ice cream.

The results of the poll are as follows:

- 6 students like chocolate topping and caramel topping
- 12 students like caramel topping but not chocolate topping
- 4 students like chocolate topping but not caramel topping
- 3 students do not like chocolate topping or caramel topping

	Chocolate	No Chocolate	Total
Caramel	6	12	18
No Caramel	4	3	7
Total	10	15	25

Of those who like caramel topping, $\frac{6}{18}$ 33% like chocolate topping, and $\frac{12}{18}$ 67% do not like chocolate topping.

Of those who do not like chocolate topping, $\frac{4}{7}$ 57% like caramel topping, and $\frac{3}{7}$ 43% do not like caramel topping.

12/15

3/15