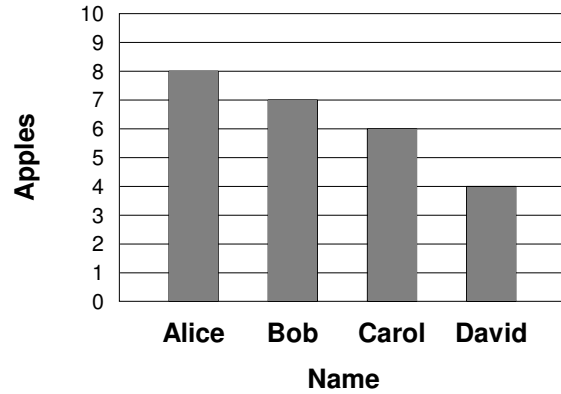


Name: \_\_\_\_\_

Date: \_\_\_\_\_

# Graphs

The graph to the right shows the number of apples picked by students visiting a farm. Use the information in the graph to answer the following questions:



1) How many fewer apples were picked by Bob than Alice?

\_\_\_\_\_

2) How many fewer apples were picked by David than Bob?

\_\_\_\_\_

3) How many apples were picked by Carol and Alice combined?

\_\_\_\_\_

4) How many more apples were picked by Bob than Carol?

\_\_\_\_\_

5) How many apples were picked by David and Carol combined?

\_\_\_\_\_

6) How many apples were picked by Carol and David combined?

\_\_\_\_\_

7) How many fewer apples were picked by Carol than Alice?

\_\_\_\_\_

8) How many apples were picked by Bob and Alice combined?

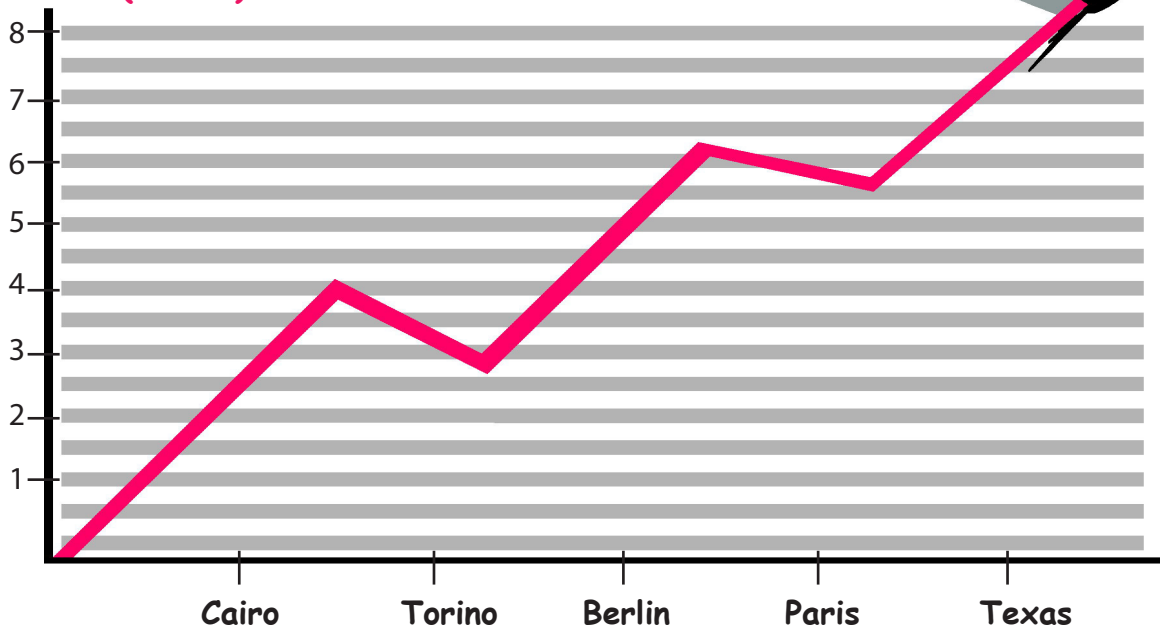
\_\_\_\_\_

# Graphs

Name : ..... Class : .....

Score : .....

In hundred meters (Y-axis)



NB: The values of the Y-axis should be multiplied by 100

1) At what altitude was the aeroplane flying over Cairo ?

2) At what altitude was the aeroplane flying over Torino ?

3) At what altitude was the aeroplane flying over Berlin ?

4) At what altitude was the aeroplane flying over Paris ?

5) At what altitude was the aeroplane flying over Texas ?

**Solve each problem.**

- 1) A carpenter has accumulated a large collection of nails, screws and bolts, which he had randomly thrown together into a bucket. Later he wanted to estimate how many of each he had. To do this he grabbed a handful from the bucket. His results are shown below.

Sample #	1	2	3	4	5	6	7
nails	19	18	19	19	18	20	22
screws	20	19	20	22	20	20	21
bolts	19	20	21	21	21	21	22

Based on the information presented can you infer anything about the relationship between the number of nails, screws and bolts in the bucket?

---



---



---

- 2) For a canned food drive there were 3 types of cans vegetables donated: peas, carrots and green beans. To estimate how many of each type were donated, you pull out a sample. The results are shown below:

Sample #	1	2
peas	4	3
carrots	4	3
green beans	3	4

Based on the information presented can you infer anything about the types of cans donated?

---



---



---

- 3) In a library there was a donation box for books. A librarian wanted to estimate how many fiction and how many non-fiction books were in the box so she pulled out a sample. The results are shown below:

Sample #	1	2	3	4	5	6
Fiction	62	61	59	59	58	60
Non-Fiction	52	54	50	54	54	50

Based on the information presented can you infer anything about the types of books donated?

---



---

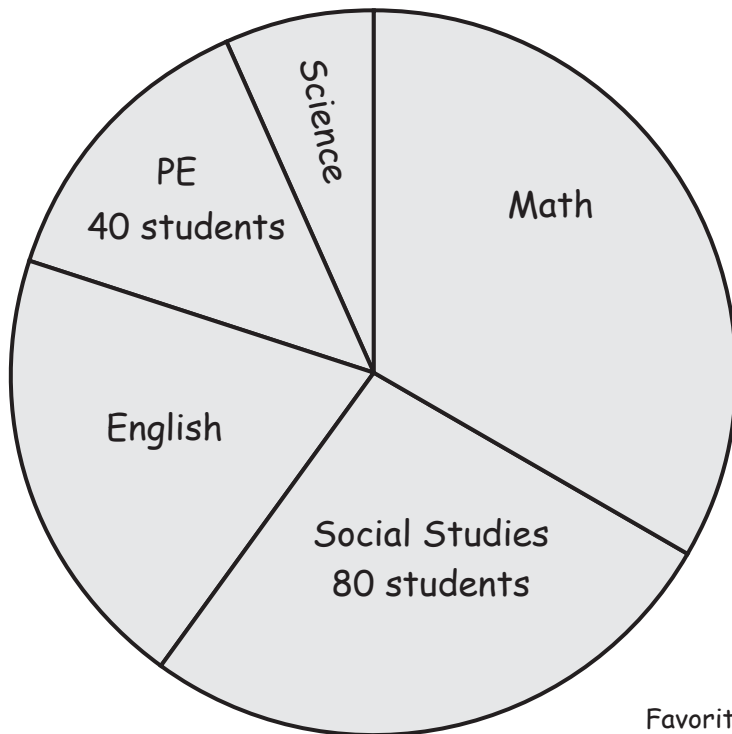


---

# Favorite Subject Pie Graph

Name: \_\_\_\_\_ Score: \_\_\_\_\_

We asked a group of students about their favorite school subject. The following graph shows their choices. Use the information to answer the questions.



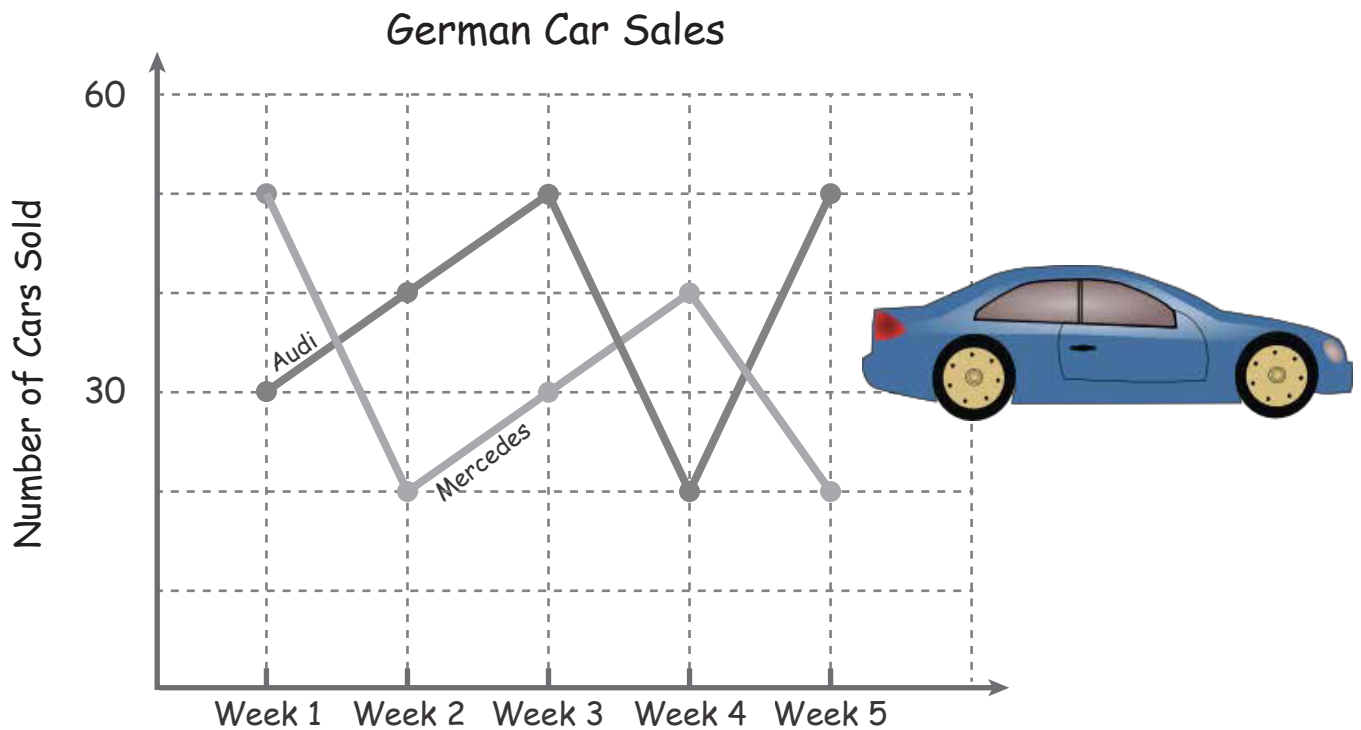
Favorite School Subject

- 1) The ratio students that favored Science to PE to English to Math is  $1 : 2 : 3 : 5$ . How many students liked Science the most?
- 2) How many students liked English the most? And Math?
- 3) What percentage of the students liked English the most?
- 4) What fraction of the students liked PE or Math the most?
- 5) What percentage of the students did not like Math the most?
- 6) What is the ratio of students that preferred Math to Social Studies?

# German Cars

Name: \_\_\_\_\_ Score: \_\_\_\_\_

The following line graphs show the number of cars a German car dealer sold in a period of 5 weeks. Use the presented information to answer the questions.



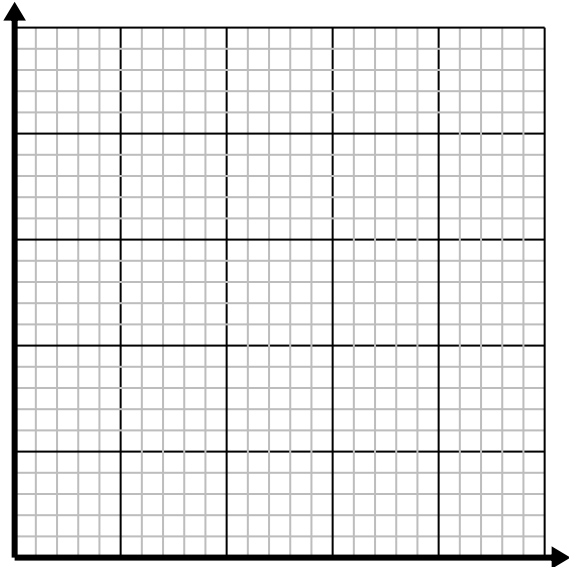
- 1) What is the ratio of sold Audis to that of Mercedes cars in week 1?
- 2) What is the ratio of sold Audis to that of Mercedes cars in the first 4 weeks?
- 3) How many Audis and Mercs did the car dealer sell in total in these 5 weeks?
- 4) What percentage of the total cars was sold in week 5?
- 5) What was the average number of sold Audis per week in this period?
- 6) The average price of an Audi is \$70,000 and that of a Mercedes \$80,000. How much did the dealer earn in week 2 on Audis and Mercedes cars?



**Solve each problem.**

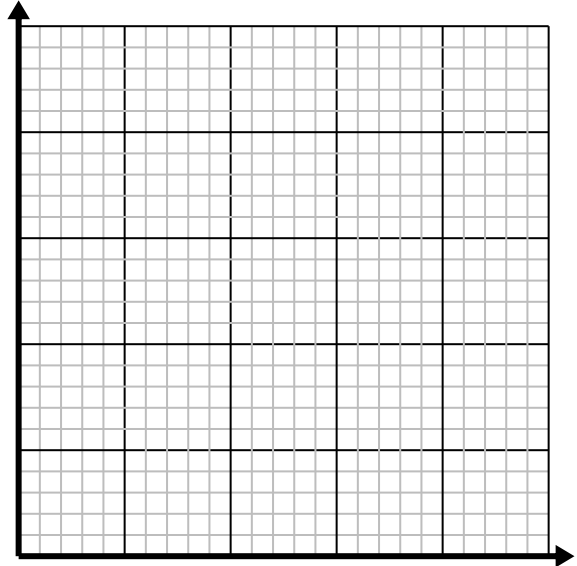
- 1) For every cup of flour 4 batches of cookies can be made.

Create a table showing the batches of cookies that can be made with up to 5 cups of flour, then plot the values on the coordinate plane.

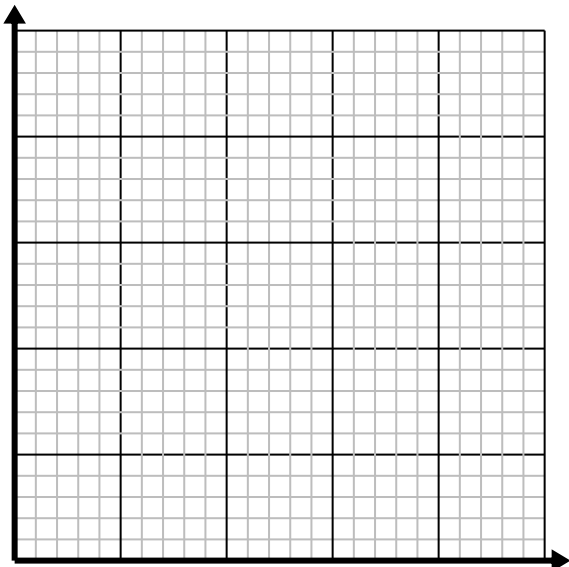
- 2) Every box of candy has 6 pieces of candy.

Create a table showing the pieces of candy in up to 5 boxes, then plot the values on the coordinate plane.

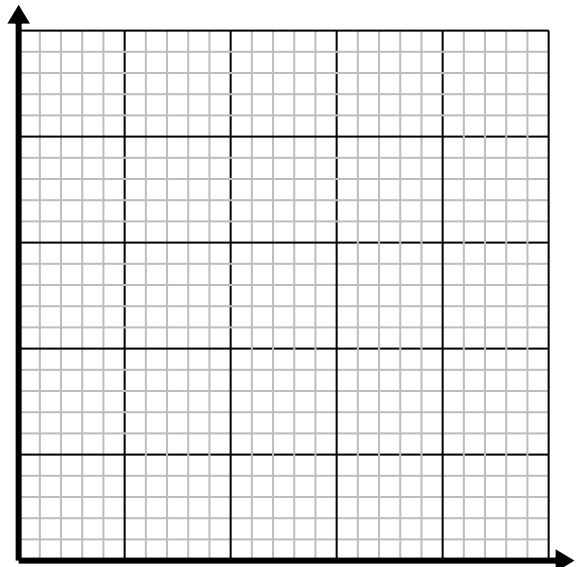
- 3) Every piece of chicken costs \$1.00.

Create a table showing the price for up to 5 pieces of chicken, then plot the values on the coordinate plane.

- 4) For every lawn mowed \$4 are earned.

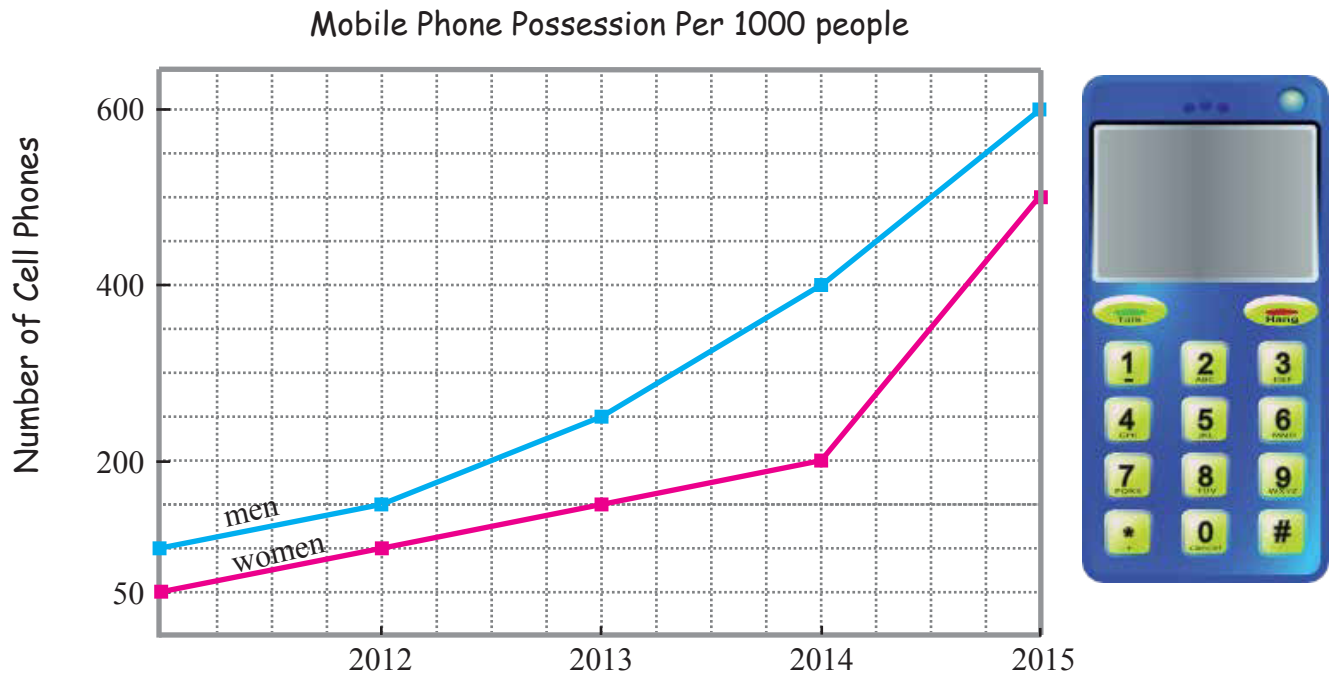
Create a table showing the money earned for mowing up to 5 lawns, then plot the values on the coordinate plane.

# Having a Mobile Phone

Name: \_\_\_\_\_ Score: \_\_\_\_\_

The following line graphs show the number of mobile phones a group of 1,000 men and women had over a period of 5 years. Use the graphs to answer the questions.

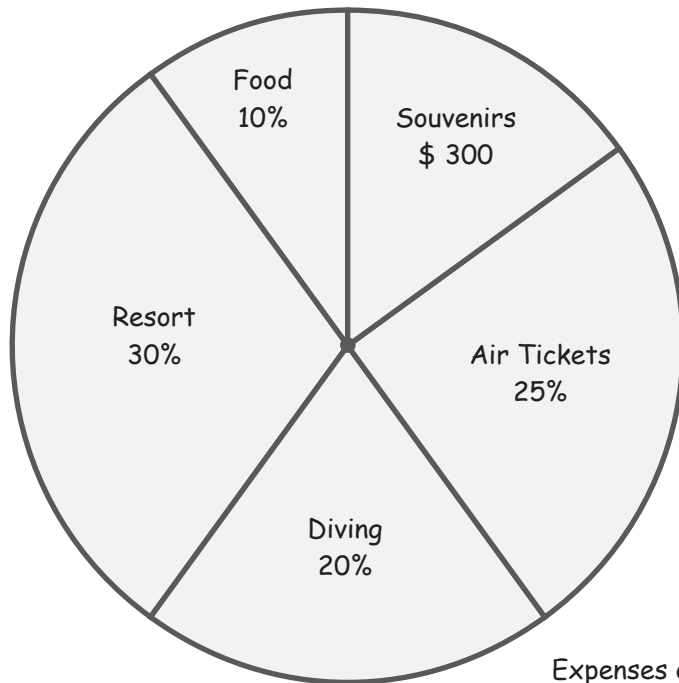


- 1) How many mobile phones did the 1,000 men and women have in 2014?
- 2) What was the ratio of men with phones to women in 2013?
- 3) In which year did the men have 200 more phones than the women?
- 4) What percentage of cell phone owners in 2013 were men?
- 5) By what percentage did the number of phones grow between 2012 and 2013?
- 6) What can you say about the total number of cell phones in 2015?

# Holiday Expenses

Name: \_\_\_\_\_ Score: \_\_\_\_\_

The following pie graph shows the expenses of our last holiday.  
Use the information to answer the questions.



Expenses of our holiday

- 1) What percentage did we spend on souvenirs?
- 2) What is the ratio of the money we spend on the resort to that on souvenirs?
- 3) How much money did we spend on food?
- 4) How much money did diving cost us?
- 5) Where did we spend 500 dollars on?
- 6) How much money did we spend in total?



Name \_\_\_\_\_

**MEAN/MEDIAN/MODE/RANGE #1**

---

**Directions:** Calculate the *mean*, *median*, *mode*, and *range* for each set of numbers below. To find the *mean* of a set of numbers, add all of the data together, then divide that sum by the amount of numbers in the set. To find the *median*, list the numbers from least to greatest and select the middle value. The *mode* is the number that appears most often in the set. There could be more than one mode, or there could be no mode. To find the *range*, take the largest value in the set minus the smallest value.

Example: Here are the numbers in the set (2, 2, 8, 10, 8)

*Mean* =  $(2 + 2 + 8 + 10 + 8) / 5 = 30/5 = 6$

*Median* =  $(\cancel{2}, \cancel{2}, 8, \cancel{8}, \cancel{10}) = 8$

*Mode* = **2 and 8**

*Range* =  $10 - 2 = 8$

---

		<u>MEAN</u>	<u>MEDIAN</u>	<u>MODE</u>	<u>RANGE</u>
1)	(5, 2, 4, 6, 8,)	_____	_____	_____	_____
2)	(2, 1, 4, 6, 1, 4, 3)	_____	_____	_____	_____
3)	(12, 8, 10,)	_____	_____	_____	_____
4)	(6, 2, 5, 7, 5)	_____	_____	_____	_____
5)	(1, 2, 4, 6, 1, 6, 1)	_____	_____	_____	_____
6)	(12, 4, 6, 10, 8)	_____	_____	_____	_____
7)	(2, 6, 10, 4, 6, 10, 4)	_____	_____	_____	_____
8)	(9, 8, 10,)	_____	_____	_____	_____
9)	(6, 8, 5, 11, 5)	_____	_____	_____	_____
10)	(5, 1, 4, 6, 1, 2, 2)	_____	_____	_____	_____

EXTENSION: What would happen to the mean if you added “10” to each set? Would the mean increase or decrease? Would it increase/decrease for each set?

Fill in the blanks below:

The _____ of a numerical set of data is the difference of the greatest value and the least value.	The _____ of a numerical set of data is the middle number when the numbers are written in numerical order.	The _____ of a numerical set of data is the value that occurs most frequently.	The _____ is the average of a set of data, calculated by dividing their sum by the number of data points.
---	--	--	---

Find the mean, median, mode(s), and range of the following data.

1) 5, 3, 2, 6, 5, 2, 5

mean: \_\_\_\_\_ median: \_\_\_\_\_ mode: \_\_\_\_\_ range: \_\_\_\_\_

2) 24, 12, 10, 15, 10, 22, 12

mean: \_\_\_\_\_ median: \_\_\_\_\_ mode: \_\_\_\_\_ range: \_\_\_\_\_

3) 14, 9, 20, 5, 17, 13

mean: \_\_\_\_\_ median: \_\_\_\_\_ mode: \_\_\_\_\_ range: \_\_\_\_\_

4) 21, 15, 16, 25, 13, 18

mean: \_\_\_\_\_ median: \_\_\_\_\_ mode: \_\_\_\_\_ range: \_\_\_\_\_

5) 20, 17, 10, 31, 25, 18, 12

mean: \_\_\_\_\_ median: \_\_\_\_\_ mode: \_\_\_\_\_ range: \_\_\_\_\_

6) 48, 40, 53, 43, 52, 46

mean: \_\_\_\_\_ median: \_\_\_\_\_ mode: \_\_\_\_\_ range: \_\_\_\_\_

7) 9, 15, 28, 10, 8

mean: \_\_\_\_\_ median: \_\_\_\_\_ mode: \_\_\_\_\_ range: \_\_\_\_\_

8) 32, 33, 22, 85, 58

mean: \_\_\_\_\_ median: \_\_\_\_\_ mode: \_\_\_\_\_ range: \_\_\_\_\_

9) 24, 35, 18, 20, 17, 30

mean: \_\_\_\_\_ median: \_\_\_\_\_ mode: \_\_\_\_\_ range: \_\_\_\_\_

10) 116, 130, 120, 125, 140, 125

mean: \_\_\_\_\_ median: \_\_\_\_\_ mode: \_\_\_\_\_ range: \_\_\_\_\_

## AFDA: Mean, Median, Mode, Range Practice

Solve the following problems. Round to the nearest tenth if necessary.

11) **Tomato Plants** The heights (in inches) of eight tomato plants are:

36, 45, 52, 40, 38, 41, 50, and 48

- What is the range of the tomato plant heights?
- Find the mean, median, and mode(s) of the tomato plant heights.

12) **World Population** The populations (in millions) in 2000 on each of the six inhabited continents were:

803, 487, 348, 3686, 730, and 31

- What is the range of the populations?
- Find the mean, median, and mode(s) of the populations.

13) **Quiz Scores** You and your friend are having a friendly competition about the scores on your math quizzes. Both of your scores for the first five quizzes are given below:

Your quiz scores: 18, 16, 19, 15, 17

Friend's quiz scores: 20, 20, 13, 12, 17

- Find the mean, median, and mode of both sets of data.
- Which person - you or your friend - has the higher mean?