

# Statistics Test Review

## **Range:**

1. What is the definition of Range?

2. Find the range of each of the following data sets:

|    |    |    |    |   |    |    |   |    |    |
|----|----|----|----|---|----|----|---|----|----|
| 12 | 19 | 13 | 26 | 8 | 28 | 26 | 9 | 18 | 20 |
|----|----|----|----|---|----|----|---|----|----|

Range =

|    |    |    |    |    |    |    |
|----|----|----|----|----|----|----|
| 25 | 67 | 13 | 25 | 42 | 67 | 16 |
| 42 | 37 | 81 | 31 | 46 | 31 | 19 |

Range =

|    |    |    |    |    |     |    |    |    |
|----|----|----|----|----|-----|----|----|----|
| 24 | 51 | 64 | 32 | 74 | 113 | 34 | 98 | 52 |
| 68 | 83 | 34 | 18 | 75 | 34  | 27 | 67 | 72 |

Range =

## **Mean:**

1. What is the definition of Mean?

2. Find the mean of each of the following data sets:

|    |    |    |    |   |    |    |   |    |    |
|----|----|----|----|---|----|----|---|----|----|
| 12 | 19 | 13 | 26 | 8 | 28 | 26 | 9 | 18 | 20 |
|----|----|----|----|---|----|----|---|----|----|

Mean =

|    |    |    |    |    |    |    |
|----|----|----|----|----|----|----|
| 25 | 67 | 13 | 25 | 42 | 67 | 16 |
| 42 | 37 | 81 | 31 | 46 | 31 | 19 |

Mean =

|    |    |    |    |    |     |    |    |    |
|----|----|----|----|----|-----|----|----|----|
| 24 | 51 | 64 | 32 | 74 | 113 | 34 | 98 | 52 |
| 68 | 83 | 34 | 18 | 75 | 34  | 27 | 67 | 72 |

Mean =

# Statistics Test Review

## **Median:**

What is the definition of median?

Look at each of the following data sets and determine what the median is:

|    |    |    |    |    |    |    |    |    |
|----|----|----|----|----|----|----|----|----|
| 24 | 17 | 31 | 26 | 29 | 19 | 32 | 15 | 27 |
|----|----|----|----|----|----|----|----|----|

Median =

|   |   |    |   |    |   |   |    |    |    |
|---|---|----|---|----|---|---|----|----|----|
| 6 | 9 | 12 | 8 | 16 | 5 | 3 | 12 | 18 | 10 |
|---|---|----|---|----|---|---|----|----|----|

Median =

|     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 125 | 160 | 135 | 100 | 129 | 192 | 245 | 197 | 146 |
| 274 | 134 | 324 | 125 | 251 | 164 | 264 | 372 | 198 |

Median =

## **Mode:**

What is the definition of mode?

Look at each of the following data sets and determine what the mode(s) are:

|     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 125 | 125 | 152 | 251 | 125 | 215 | 152 | 215 | 512 |
| 215 | 215 | 125 | 152 | 152 | 125 | 521 | 125 | 215 |

Mode =

|    |    |    |    |    |    |    |    |    |    |
|----|----|----|----|----|----|----|----|----|----|
| 41 | 14 | 14 | 14 | 41 | 41 | 14 | 44 | 11 | 14 |
| 41 | 44 | 14 | 11 | 14 | 44 | 41 | 14 | 14 | 41 |

Mode =

# Statistics Test Review

## Outliers:

What is an outlier?

There are many times that we exclude outliers from our data, and sometimes we keep them when they are important. We always need a good reason if we are going to do either. Read each situation and explain why you should keep or discard the outlier.

1. A movie theatre generally sells 500 tickets a day. One Tuesday a month, there is a half price special and there are usually 1100 tickets sold. When calculating the average number of tickets sold over the month, should you keep the 1100 value? Why or why not?
2. The track and field team has been practicing their 100m sprint. The average amount of time it took members of the team last week was 10.35 seconds. This week, it took one member 18 seconds to complete, changing the average to 13.55 seconds. Should you keep the 18 second value? Why or why not?
3. A factory worker has been checking how well his machine is cutting disks. The measurements are usually all cut within 0.01mm of what they should be. He finds 128 that are within 0.01mm, one that is 0.25mm off and one that is 0.32mm off. Should he keep the two larger values when calculating the average? Why or why not?

# Statistics Test Review

## Bar Graphs:

Using each of the following sets of data, create a bar graph that will accurately represent the information. Use a Ruler! Don't forget labels, and colour in the graphs!

| <b>Favorite Colour</b> | <b>Number of People</b> |
|------------------------|-------------------------|
| Red                    | 8                       |
| Blue                   | 12                      |
| Green                  | 6                       |
| Yellow                 | 8                       |
| Orange                 | 4                       |
| Purple                 | 7                       |

| <b>Favorite Pet Animal</b> | <b>Number of People</b> |
|----------------------------|-------------------------|
| Cat                        | 12                      |
| Dog                        | 20                      |
| Fish                       | 10                      |
| Hamster                    | 3                       |
| Lizard                     | 5                       |
| Bird                       | 8                       |
| Snake                      | 2                       |