Lesson 1 – Statistical Surveys

Statistics is an area of study that allows us to collect information about a certain topic, and then make conclusions or predictions.

When we are about to undergo a study, the first thing be need is a   . We do need to know exactly what it is we are trying to figure out!

Once we have our topic, we need to find   hat we are going to be studying. A population is simply any group that we want to study. The students in the high school can be a population, the village of Breton can be a population, even the province of Alberta can be a population.

After we find the population we are going to study, and know what we want to find out, we can begin our study! But How?

What are some of the ways that we can get information from the population? Keep in mind that size is an issue. If we are going to get information from all the students in the school, we are going to use different methods than if we were trying to gain information from people all over Canada!
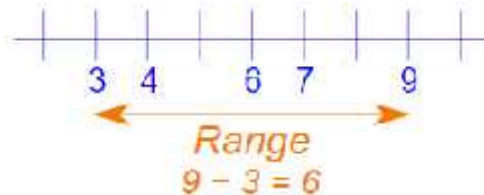
Information Gathering Methods:

- In person Interviews   - Telephone Survey   - Online Survey

- Email Survey   - Opinion Boxes   - Mailed Surveys

When have seen or done a survey?

Survey topics can be based on opinions, such as favorite hockey teams or favorite foods, or can be numerical, such as how old you are or how tall you are.

When we are working with numerical data, we often analyze the data **range.** The range is the difference between the biggest and the smallest number in your data set.

For Example: In **{4, 6, 9, 3, 7}** the lowest value is 3, and the highest is 9.

Example:

The following chart shows the heart rate, height and mass of all the students in a gym class.

Student	Heart Rate (beats/min)	Height (cm)	Mass (kg)
Shandra	78	160	45
Mike	72	152	59
Allison	74	162	48
Mark	69	178	66
Brian	62	181	63
Jason	68	173	60
Janice	79	156	44
Devon	72	169	41
Leslie	80	156	44
Charlie	84	170	59

Heart Rate Range

$= 84 - 62$

$= 22$

Height Range
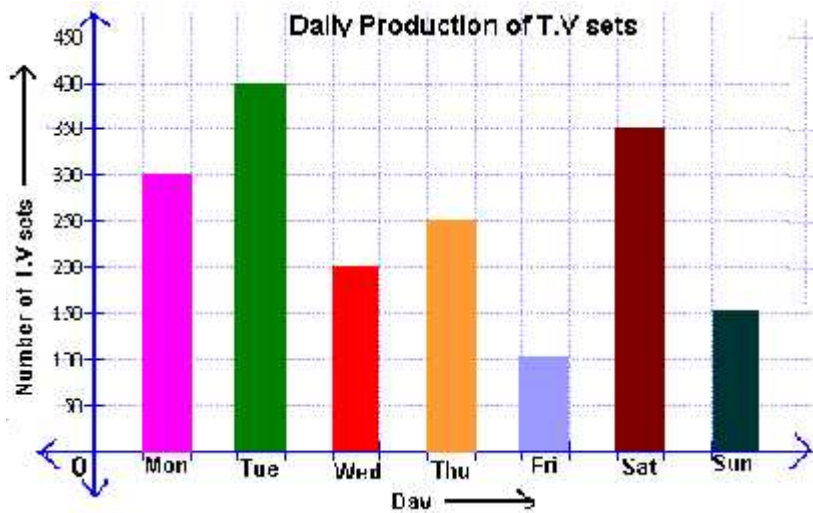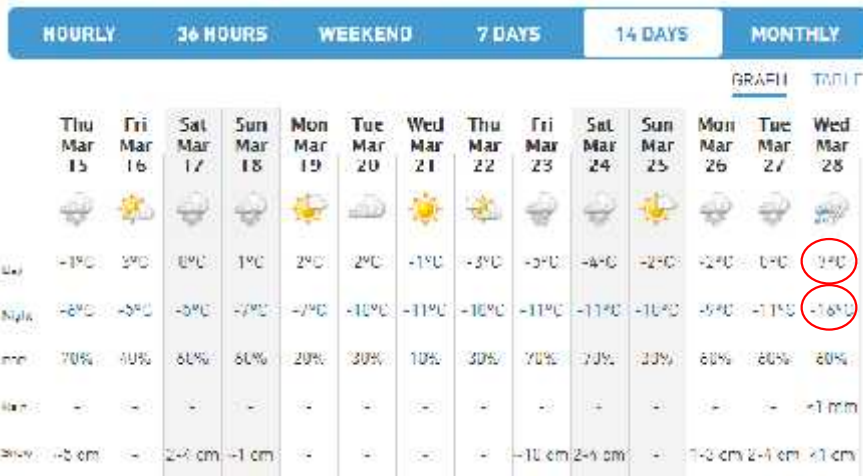
$= 181 - 152$

$= 29$

Mass Range

$= 66 - 41$

$= 25$

What is the range of TV sets produced through the week?

$$= 400 - 100$$

$$= 300$$

What is the range of temperatures for the next 14 days in Breton?

$$= 7 - (-16)$$

$$= 23°$$