

Part 1: Theories and collecting data



What is a standing jump?

<https://www.youtube.com/watch?v=6P8qmLl4rZQ>

What factors do you think affect how far you can jump?



Do you think students will jump farther if... _____?

Today you are going to be jumping to see how far you can jump. Twice.

But before we do that, as a class, we have to decide how our jumps will be measured.

Jump 1: Your jump length:

Before you measure a second jump, decide: do you think there will be a difference in jump length for you?

What are some factors that will affect the length of your second jump?

Jump 2: Your jump length:

Go up to the board to record both of your data values in each list. Then, copy the class's data.

Jump 1	Jump 2

Part 2: Organizing Data

What could you describe about the data from Jump 1 just by the form that its in?

If we wanted to get a better idea of how the data is spread out, how groups of data compare to other groups, etc, what would help?

To help us organize our data, we will organize it in what is called _____.

How could we categorize our data? *Break it up into ranges of jump lengths.*

Frequency Distribution Table: Jump 1	
<i>Jump Length</i>	<i>Frequency</i>

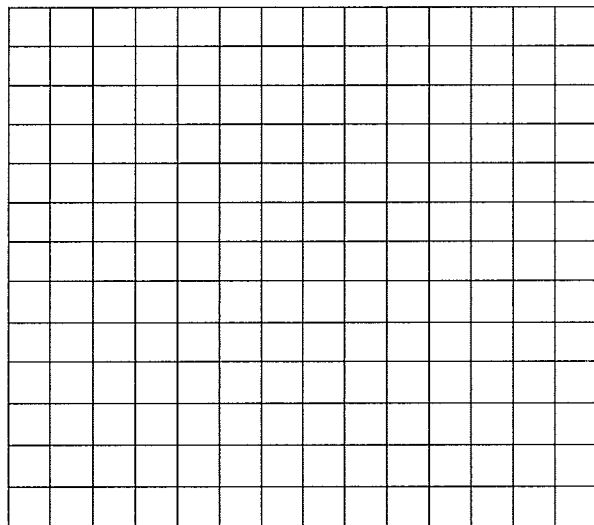
A _____.

The bars in the graph are of _____ and _____.

The x-axis:

The y-axis:

Jump 1



How to create a histogram

- 1.
- 2.
- 3.

Part 3: What, more frequency tables?

We can further analyze our frequency distribution by creating a *relative frequency table*.

For example, *Jump 1*:

Jump Length	
Relative frequency	

- Using some relative frequencies, form some conclusions:
- How can you ensure that you've correctly converted the frequencies to relative frequencies?

We organized this data into categories, and based on them, found the frequencies. The categorical variable was jump length. What other categories could we break out data into?

- Create a two-way table based on our results.

	<i>Jump 1 Length (Classes)</i>		Total
<i>Gender</i>			
Girl			
Boy			
Total			

From this two-way table...

- What percentage of students could jump at least _____ cm?
- What percentage of girls could jump at least _____ cm?
- Versus...what percentage of people who jumped _____ cm were girls?
- What percentage of boys could jump at least _____ cm?

