

## Reteaching Page

### 6.5 – Frequency Tables and Histograms

A frequency table tells how often something occurs. You need to keep track of the number of times an event happens. A cumulative frequency is the running total of all of the frequencies.

Kerry polled her friends concerning their favorite color and wrote the results in the box below.

blue, red, red, blue, blue, green, blue, blue, yellow, red,  
blue, yellow, blue, blue, red, green, green, blue, green,

To make a frequency table of Kerry's data, make a tally table to find the frequency of each color choice.

blue	HHH IIII
red	IIII
green	IIII
yellow	II

Then create a Frequency Table to show the results.

Color	Frequency	Cumulative Frequency
blue	9	9
red	4	13
green	4	17
yellow	2	19

Make a Cumulative Frequency table for the following data.

Bobby rolled a number cube 21 times. His results are shown in the box below.

1, 5, 6, 2, 5, 3, 5, 5, 4, 5, 2, 3, 6, 2, 5, 1, 5, 5, 4, 4, 3

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### 6.5b – Frequency Tables and Histograms

When your data is too varied to make a bar graph, you can group data into intervals or categories and create a **histogram**.

The stewardess on an airline polled the passengers about the age at which they rode on their first airplane. Her data is shown below.

10, 17, 22, 47, 50, 43, 4, 57, 46, 56, 67,  
15, 22, 53, 8, 58, 36, 30, 27, 7, 64, 8, 63, 27, 3,  
29, 47, 30, 26, 42, 45, 2, 37, 6, 23, 37, 35

You quickly notice that this data can not easily be bar graphed as it is, so you will want to create a group of intervals that will make it easier.

1. Determine the range of your data.
  - a. 67 is the oldest and 2 is the youngest.
  - b. That is about 70 years.
2. Decide on an appropriate interval.
  - a. You should try to keep the number of bars limited to 5.
  - b.  $70 \div 5$  is 15.
3. Create your intervals and a tally table.
  - a. Make sure your cumulative frequency matches the total number of data!!

Ages of Passengers on Flight #384		
Age	Frequency	Cumulative Frequency
0 - 15	### IIII	9
16 - 30	### ###	19
31 - 45	### II	26
46 - 70	### ### I	47

Now create a bar graph (**with the bars touching**) of your data!

