

Algebra 1

Lesson 12-2

Frequency and Histograms

Goal: to make and interpret frequency tables and histograms

SOLVE IT! Getting Ready!

As part of an environmental science project, you measure the trees in a park to the nearest foot. Your data are shown at the right. You want to estimate the number of trees between 30 ft and 60 ft tall. Choose a method for estimating and state any assumptions you make. What is your estimate? Explain your reasoning.

Height (ft)	Number of Trees
0-25	27
26-50	24
51-75	31
76-100	7

How could we display this data?

frequency: an interval is the number of data values in that interval

frequency table: groups a set of data values into intervals and shows the frequency for each interval.

Intervals do not overlap, do not have gaps, and are usually equal size.

Make a frequency table for the following:

7, 17, 14, ~~2~~, ~~7~~, ~~9~~, 5, 12, 3, ~~10~~, 4, 12, 7, 15

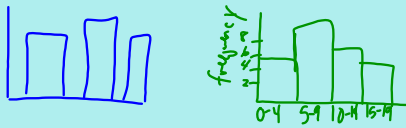
- start by arranging numbers and then setting up intervals

2, 3, 4, 5, 7, 7, 7, 9, 10, 12, 12, 14, 15

interval	Frequency
0-4	3
5-9	5
10-14	4
15-19	2

A histogram is a graph that can display data from a frequency table.

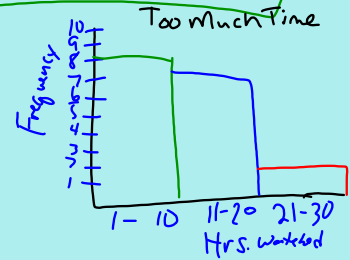
- has a bar for each interval
- height of the bar shows the frequency
- no gaps, and bars are equal length



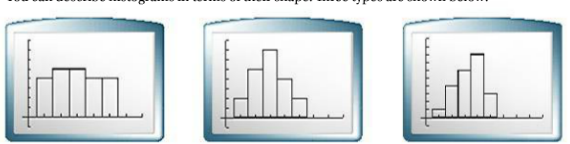
The number of hours per week spent watching TV (or Netflix, ...) for this class. What is the histogram that represents the data?

Handwritten data points: 9, 12, 7, 13, 10, 4, 18, 8, 15, 12, 21, 8, 19, 10.

int.	freq.
1-10	8
11-20	7
21-30	1



Histograms can be described by the shape they make.



uniform symmetric skewed

A cumulative frequency table shows the number of data values that lie in or below that given interval.

Handwritten data points: 12, 13, 15, 1, 5, 7, 10, 8, 2, 2, 7, 11, 2, 1, 0, 15.

Interval	Frequency	Cumulative Frequency
0-4	6	6
5-9	4	10
10-14	4	14
15-19	2	16

Hwk: pg 735 - 737
#8, 12, 14 - 17 all, 18,
22-24 all, 27 - 30 all