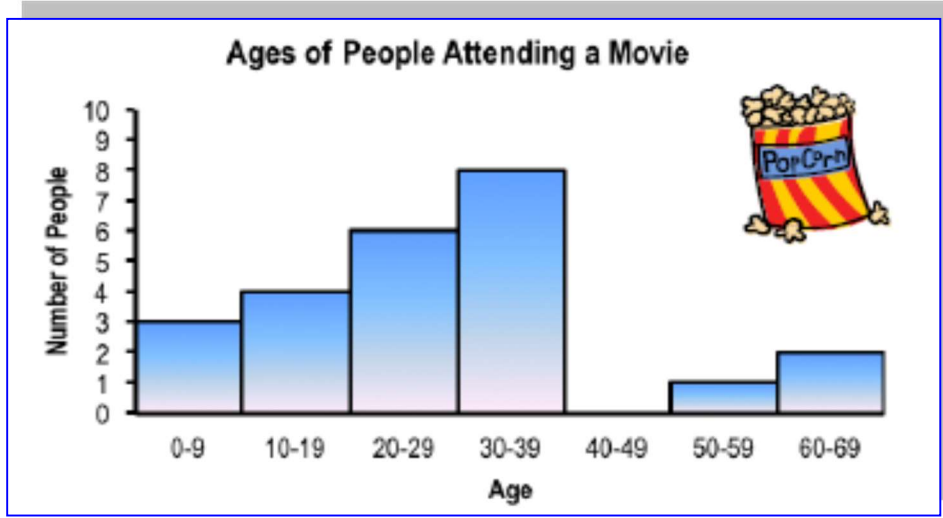# Histograms

A _____ is a bar graph used to display numerical data grouped in equal intervals.

Example:

The students of Monster High took a survey of the ages of everyone attending the "Ghouls Rule" Movie. The results are displayed in the histogram below.

Ages of People Attending a Movie

1) How many people from ages 10-19 attended the movie? _____

2) How many people aged 50 or over attended the movie? _____

3) How many kids younger than 20 attended the movie? _____

4) How many total people attended the movie? _____

5) What does the gap at the interval 40-49 mean? _____
_____

6) Can you tell whether a 25-year-old attended the movie? _____
Why or why not? _____

7) Why must the bars on a histogram always be touching (unless there is a gap in data)? _____

Making a Histogram

Determining Intervals

Look at your data. What is the best way to break that data up?

Examples:

Data Range	Scale	Intervals
3 to 46	0 – 50	0-10, 11-20, 21-30, 31-40, 41-50
1 to 248	0 – 300	0-50, 51-100, 101-150, 151-200, 201-250
4.1 to 5.4	4 – 5.5	4-4.2, 4.3-4.5, 4.6-4.8, 4.9-5.1, 5.2-5.4
52 to 964		

Organize the data in a _____ _____ using the intervals.

Example:

Pages Read per Student Last Weekend				
78	15	40	19	188
50	122	96	37	102

The data ranges from _____ to _____. The scale will go from _____ to _____. We can use the interval of _____.

Make a frequency table:

Pages Read per Student Last Weekend				
NUMBER:	1-50	51-100	101-150	151-200
TALLY:	~~THL~~	II	II	I
FREQUENCY:	5	2	2	1

Use the information in the frequency table on the previous page to create a histogram for the data.

Pages Read per Student Last Weekend				
NUMBER:	1-50	51-100	101-150	151-200
TALLY:	THL	II	II	I
FREQUENCY:	5	2	2	1

Title: _____

Remember: Bars must _____. Label both _____.

Make a histogram for the following data:

How many songs are on your phone?

50, 33, 100, 202, 114, 44, 45, 203, 123, 176, 225, 15, 23, 111, 132, 156, 210, 43, 65, 66, 83, 90, 15, 140, 199, 134, 56, 14, 2

Number					
Tally					
Frequency					

Title: _____

Remember: Bars must _____. Label both _____.