Bar Graph

*Similar to a histogram except there are spaces between the bars.

*Used for categorical data.

Ex 2: Create a bar graph of the following hockey all-time regular season goal scorers.

Name	Goals scored
Wayne Gretzky	894
Gordie Howe	801
Brett Hull	741
Marcel Dionne	731
Phil Esposito	717
Mike Gartner	708
Mark Messier	694
Steve Yzerman	692
Mario Lemieux	690
Luc Robitaille	668



Circle Graph

*Used for numerical data when examining data in proportion to a whole.

*Good to see budgets, mark breakdowns, costs in manufacturing etc.

<u>Ex</u>: Given the following monthly budget, create a circle graph.

Item	Cost (\$)
Rent	900
Transportation	400
Food	500
Clothing	100
Entertainment	200

Step 1: Add an additional row for each column total. Add an additional column to calculate the corresponding degrees in a circle graph.

Item	Cost (\$)	Degrees in Circle
Rent	900	$\frac{900}{2100} \times 360 = 154.3^{\circ}$
Transportation	400	$\frac{400}{2100} \times 360 = 68.6^{\circ}$
Food	500	$\frac{500}{2100} \times 360 = 85.7^{\circ}$
Clothing	100	$\frac{100}{2100} \times 360 = 17.1^{\circ}$
Entertainment	200	$\frac{200}{2100} \times 360 = 34.3^{\circ}$
Total	2100	360°

Step 2: Mark a centre to your circle and draw a starting line. From your starting line, use a protractor to measure each angle. Draw a line at each measurement and label each section.



Pictograph

*Good way to visualize data. *Not as precise as the other graphing styles. *Commonly used for frequency with discrete data.

Ex: Draw a pictograph to represent the following list of students in clubs using the legend that

1 stick man= 25 people.

Football= 50 students Band= 63 students Soccer= 37 students Musical Theatre= 52 students Track= 35 students

Step 1: Create a table where the left column lists the possible activities and the right column will have the proper number of pictures. This is done as an estimate only.

Step 2: Draw the number of stick figures that most closely relates to the number of students in each activity. Notice that 12 or 13 people can be represented by half of a stick figure.

Activity	No. of
	Participant
	S
Football	
Band	
Soccer	μ Ω*Ω
Musical	
Theatre	
Track	л Д *Д