

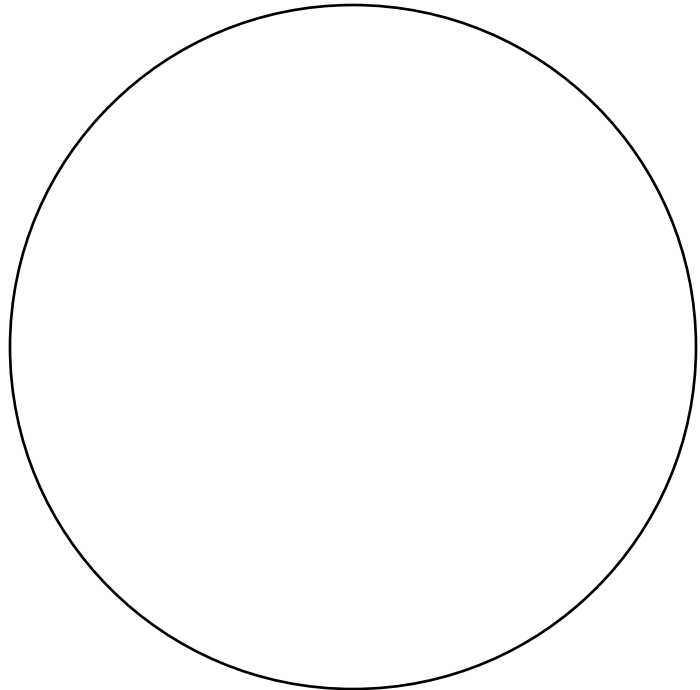
Instructions: For each of the following problems, follow the steps described to draw a graph of the provided data of the specified type.

1. Create a pie chart for the following data. A circle is provided for your convenience.
A sample of 20 students who had recently taken elementary statistics yielded the following information on the brand of calculator owned (T=Texas Instrument, H=Hewlett Packard, C=Casio, S=Sharp).

T	T	H	T	C	T	T	S	C	H
S	S	T	H	C	T	T	T	H	T

Do the following:

- a) Count the number of hits in each of the 4 categories. Find the proportion of the 20 in each category.
- b) Multiple the proportion by 360 to get the number of degrees you need in the circle for the pie slice.
- c) To be precise, you can use a protractor, but for this exercise, estimate the correct slice size. Be sure that slices representing larger percentages really are larger. Label each slice appropriately.
- d) Put a title on your chart that tells readers what the chart is displaying.



2. A stem-and-leaf plot (or also called just a stem plot) displays data in a distribution without losing the original data. A data set is displayed below. Put this data in a stem-and-leaf display.

12	31	35	40	41	44	47	48	51	53
54	55	55	57	58	62	65	73	81	119

- Sort the data set if it is not already sorted.
- Since the 10's digit represents more than 5 categories, we can use it as our stem. Draw a vertical line and list the initial ten's digits on the left side of the line. Do not skip any possible values even if there is no data in the list for that unit of 10 (for instance, you need a stem for 2 (20's) even though there is no data in the range of 20-29).
- The leaves are the ones digits. List them in order on the right side of your vertical line. Space them carefully so that each digit takes up the same amount of space.
- Be sure to include a key to help translate your graph to readers (for instance $6|5=65$).
- If these numbers represent placement scores on a test of algebra knowledge whose range is 0 to 120, add a title to your graph to tell readers what it represents.

3. If the data was as shown below, however, we would need to split the 10's into 5's with two stems for each 10's unit representing the lower half (ones digits 0-4) and another the upper half (ones digits 5-9). Use the data below and repeat the above exercise with that change.

40	41	43	45	46	47	48	50	51	53
54	54	55	57	58	59	61	63	66	76