Frequency Distribution Worksheet

A frequency distribution is a convenient way to organize a set of data.

Example: The heights in inches of 30 students are as follows:
66, 68, 65, 70, 67, 64, 68, 64, 66, 64, 70, 72, 71, 69, 69, 64, 67, 63, 70, 71,
63, 68, 67, 65, 69, 65, 67, 66, 69, 67
Prepare a frequency distribution.

Solution: Make three columns. List the heights (in order of size) in the first column, the tally in the second column, and the frequency in the third column.

Height	Tally	Frequency
63	II	2
64	IIII	4
65	III	3
66	III	3
67	~~IIII~~	5
68	III	3
69	IIII	4
70	III	3
71	II	2
72	I	1

Problems

1. A police radar unit measured the speed of 25 cars on a certain street. The resulting speeds were:
   29, 23, 30, 30, 27, 24, 30, 25, 23, 28, 25, 24, 28, 30, 23, 30, 27, 25, 29, 24, 23, 26, 30, 28, 25
   a. Prepare a frequency distribution for this data.
   b. Draw a bar graph to represent this data.
   c. Draw a line graph to represent this data.
   d. Use the frequency distribution to determine the median and mode speeds.
   e. Use the frequency distribution to find the mean of all the speeds.
2. A die was rolled 30 times with the following results:
   6, 5, 4, 4, 5, 6, 1, 2, 1, 6, 4, 3, 3, 3, 4, 2, 2, 5, 6, 4, 1, 2, 4, 3, 5, 5, 3, 3, 4, 2
   a. Prepare a frequency distribution for this data.
   b. Draw a bar graph to represent this data.