Section 2.2 - More Graphs and Displays

1. Types of Graphs - Descriptive Statistics

   (a) **Pie Chart** (Qualitative/Categorical: add to 100%): sector area is proportional to frequency

   (b) **Bar Graph** (Qualitative/Categorical): Height/length of each bar represents frequency/relative frequency.

   (c) **Pareto chart**: vertical bar graph bars are positioned in order of decreasing height

   (d) **Stem-and-leaf plot** (Quantitative): Separate each observation into a **stem** and **leaf** (Leaves may be ordered or unordered)

   - Similar to histogram
   - Preserves actual value of each observation
   - Works well for small sets of data
   - **Split stems**: Double the number of stems when all leaves would fall on few stems

   (e) Timeplot/time series chart: Plots each observation against the time at which it was measured
   (height, stocks, etc.); Reveal **trends** over time

2. Example #1: Use a stem-and-leaf plot to display the data representing the number of advertisements seen or heard in one week by a sample of 30 people from the U.S.

598	494	441	595	728	690	684	486	735	808	734	590	673	545	702
481	298	135	846	764	317	649	732	582	637	588	540	727	486	703