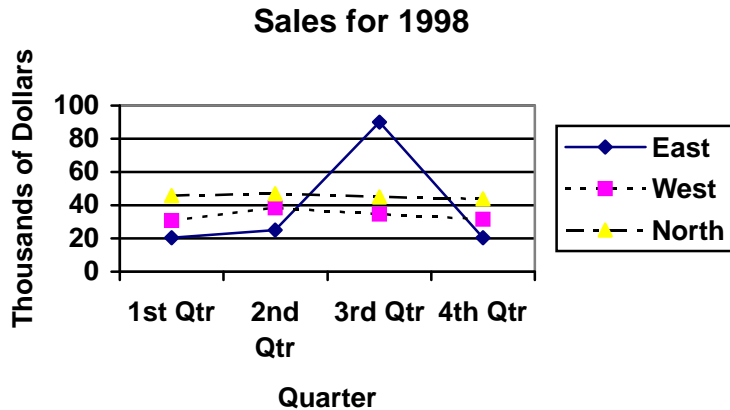


4-3 Charts and Graphs

When reading a chart or a graph, read all titles and the legend before trying to interpret the meaning.

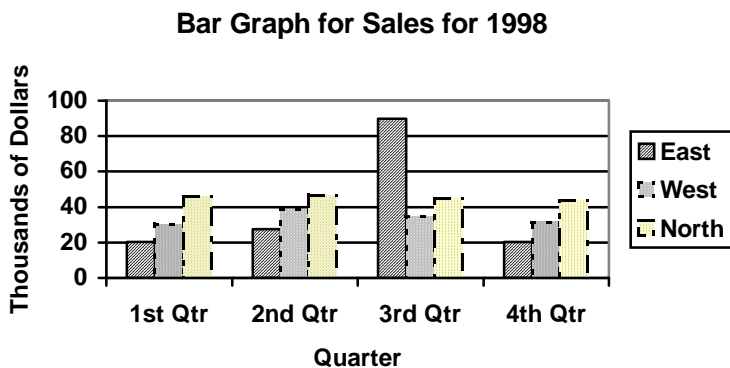
- Example: 1. Use the chart below to tell in which quarter the West had the most sales.
 2. By approximately what percent did sales in the East increase from the second quarter to the third?

First read all titles and the legend. The title tells you the chart indicates sales in the year 1998. The vertical axis title tells the numbers are in thousands of dollars. The legend tells the three areas East, West and North are represented on the chart.

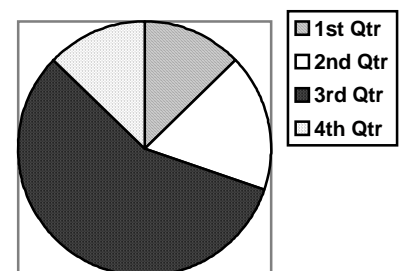


- The legend shows the West as a dotted line. Following this line to its highest peak and then reading the corresponding quarter along the horizontal axis gives the second quarter as the highest sales for the west.
- You will have to eyeball a number for the amount of sales in both the second and third quarters to answer this question. I see about 25 thousand for the second quarter and 90 thousand for the third. For a percent increase think what percent of 25 added to 25 is 90?
 $25x + 25 = 90$
 $25x = 65$
 $x = 2.6$ Changing this to a percent gives an answer of 260% increase.

There are several types of graphs that can display the same information.

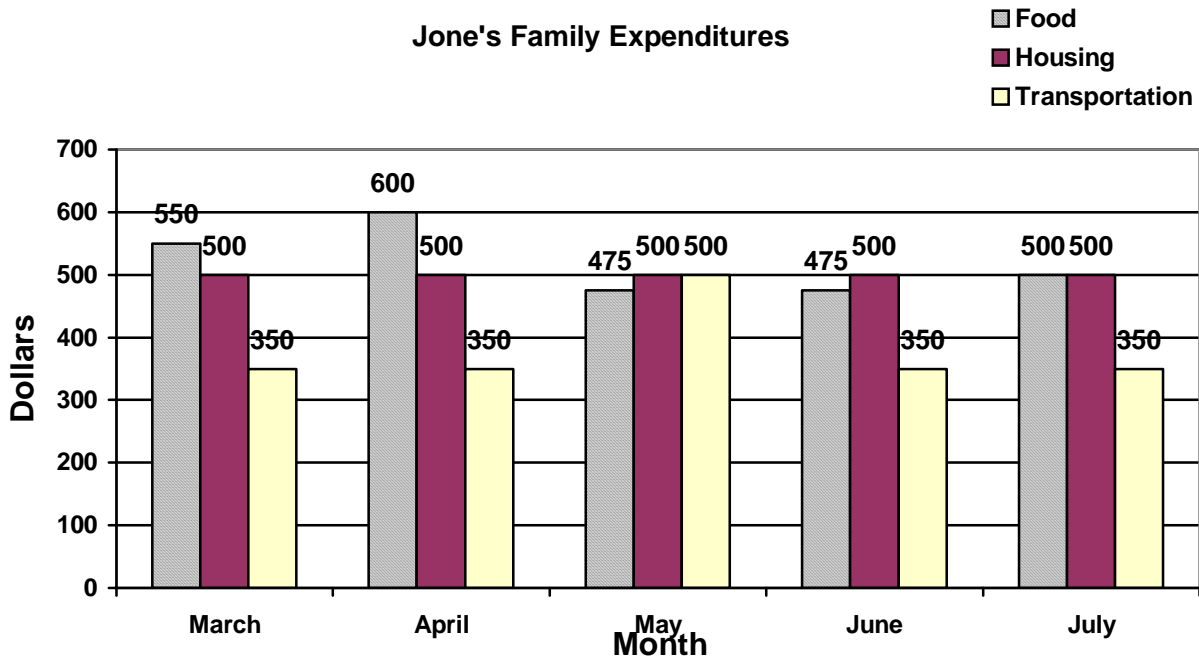


Pie Chart for Eastern Sales for 1998



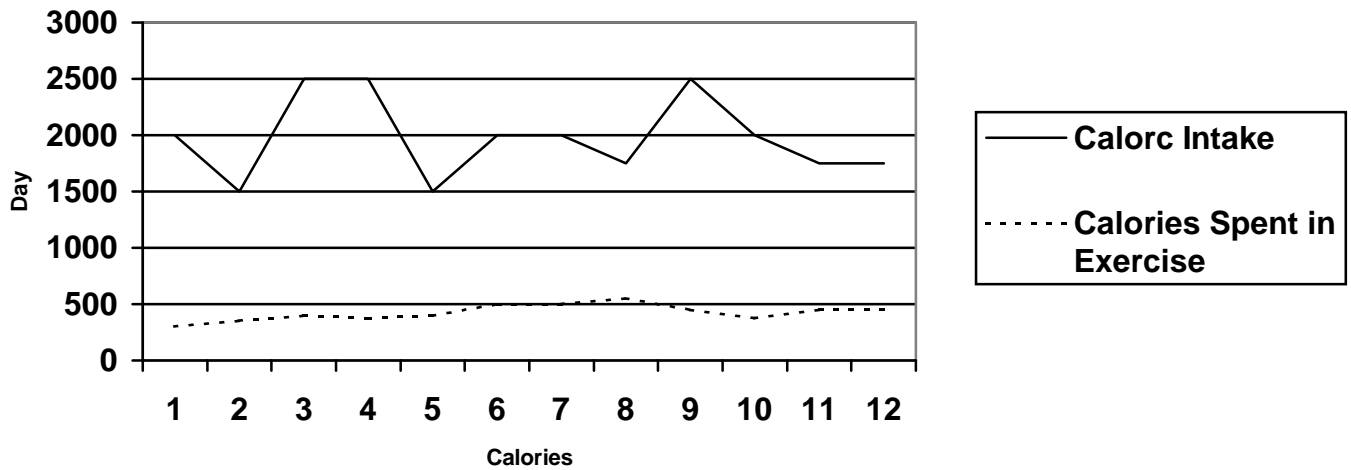
The pie chart can only display one level, either the quarters for one area or all areas for one quarter.

Jone's Family Expenditures



- What is the mean expenditure for food for the five months?
- How much more was spent on housing than transportation during April?
- What percent of total money spent during the five months was spent on food?
- If the amount spent on food in March is 75% of what was spent in December, how much was spent in December?

Diet and Exercise



- What is the mean, median, mode, and range number of calories eaten for the 12 days?
- Estimate the range of calories spent in exercise for the 12 days.
- What number of calories would need to be eaten on the 13th and 14th day to make the average 1750 for the two week period? Assume the same number of calories on both days.
- On a separate sheet make a pie chart with a personal budget including housing, food, utilities, transportation, and clothing.