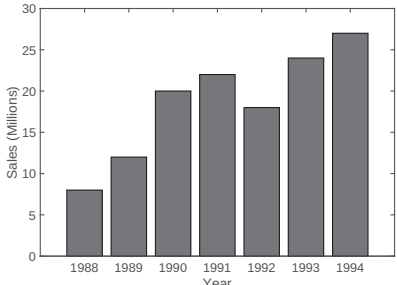
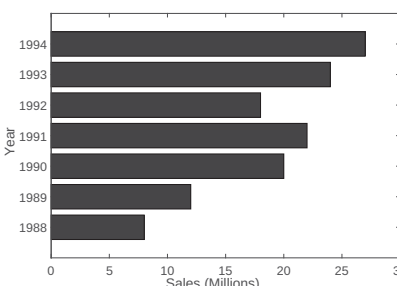
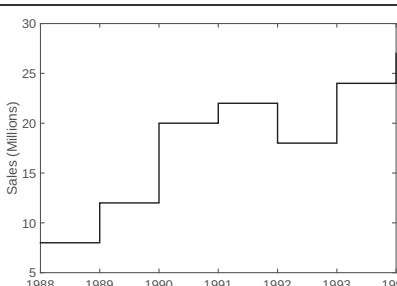


- The lengths of the four vectors  $x$ ,  $y$ ,  $d$ , and  $u$  must be the same.
- At each point the error bar extends from  $y(i) - d(i)$  to  $y(i) + u(i)$ .

### 5.7 PLOTS WITH SPECIAL GRAPHICS

All the plots that have been presented so far in this chapter are line plots in which the data points are connected by lines. In many situations plots with different graphics or geometry can present data more effectively. MATLAB has many options for creating a wide variety of plots. These include bar, stairs, stem, and pie plots and many more. Following are some of the special graphics plots that can be created with MATLAB. A complete list of the plotting functions that MATLAB offers and information on how to use them can be found in the Help Window. In this window first choose “Functions by Category,” then select “Graphics” and then select “Basic Plots and Graphs” or “Specialized Plotting.”

Bar (vertical and horizontal), stairs, and stem plots are presented in the following charts using the sales data from Section 5.1.1.

<u>Vertical Bar Plot</u>  Function format:  <code>bar(x,y)</code>		<pre>yr=[1988:1994]; sle=[8 12 20 22 18 24 27]; bar(yr,sle,'r') xlabel('Year') ylabel('Sales (Millions)')</pre> <p>The bars are in red.</p>
<u>Horizontal Bar Plot</u>  Function format:  <code>barh(x,y)</code>		<pre>yr=[1988:1994]; sle=[8 12 20 22 18 24 27]; barh(yr,sle) xlabel('Sales (Millions)') ylabel('Year')</pre>
<u>Stairs Plot</u>  Function format:  <code>stairs(x,y)</code>		<pre>yr=[1988:1994]; sle=[8 12 20 22 18 24 27]; stairs(yr,sle) xlabel('Year') ylabel('Sales (Millions)')</pre>