13.7 Draw Histograms

TEKS *8.12.C*

**QUESTION** How can you use a graphing calculator to make a histogram?

EXAMPLE Make a histogram

POPULATION The populations (in thousands) of metropolitan areas in the states with the greatest metropolitan populations in the United States in 2000 are listed below. Make a histogram of the data.

4527 32,750 14,837 5667 10,542 4390 4911 6101 8169 3795 8414
17,473 5437 9214 10,392 3862 17,692 5528 4899 3640

STEP 1 *Enter the data*
Go to the STAT menu and choose Edit. Enter the data into List 1.
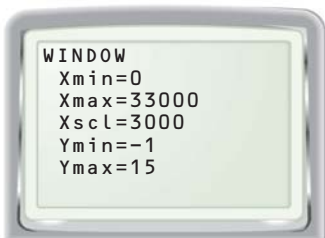
```
  L1      L2     L3
4527
32750
14837
5667
10542
L1(1)=4527
```
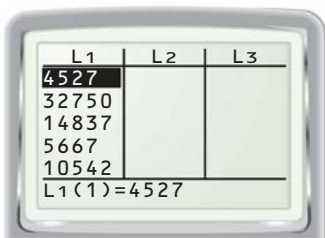
STEP 2 *Select histogram*
Go to the STAT PLOT screen. Select Plot 1. Use the settings shown below.

```
Plot1 Plot2 Plot3
On Off
Type
XList:L1
Freq:1
```

STEP 3 *Set the viewing window*
Go to the WINDOW screen. Use the settings shown below.

```
WINDOW
 Xmin=0
 Xmax=33000
 Xscl=3000
 Ymin=-1
 Ymax=15
```

STEP 4 *Graph*
Press GRAPH. Use the *trace* feature to move from bar to bar.

```
min=3000
max<6000    n=10
```
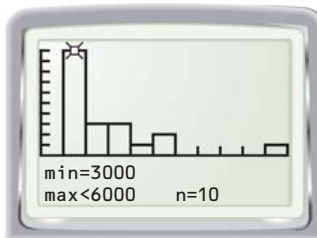
DRAW CONCLUSIONS

1. *Describe* the distribution of the population data in the example above.

2. **BOWLING** Use a graphing calculator to make a histogram of the following bowling scores: 200, 210, 105, 300, 180, 175, 162, 110, 140, 300, 152, 165, 175, 115, 250, 270, 145, 182, 164, 122, 141, 135, 189, 170, 151, 158.