MIXED REVIEW of Problem Solving

MATHEMATICAL PRACTICES Make sense of problems and persevere in solving them.

1. MULTI-STEP PROBLEM The ages of people who attended an opening reception for a theater production are listed below.

54, 25, 28, 64, 30, 42, 33, 50, 27, 35, 40, 39, 41, 52, 49, 48, 56, 60, 58, 37, 56, 45, 57, 62

a. Make a frequency table of the data.

b. Make a histogram of the data.

2. SHORT RESPONSE Students collected fish of two species, blue gill and largemouth bass, from the same pond for a science fair project. The lengths (in millimeters) of the fish they collected are listed below.

Blue gill: 186, 171, 171, 176, 183, 182, 172, 172, 173, 184

Largemouth bass: 354, 297, 300, 344, 317, 360, 432, 457, 392, 395

a. Make a box-and-whisker plot for the data.

b. Based on the fish the students collected, which of the species has more variation in length? *Explain* your reasoning.

3. MULTI-STEP PROBLEM Jo and her friend Abe sold tickets for the Homecoming football game. The table shows the number of student tickets and adult tickets each person sold.

	Student	Adult	Total
Jo	178	215	393
Abe	201	188	389
Total	379	403	782

a. How many adult tickets did Jo sell?

b. How many tickets did Jo and Abe sell altogether?

c. Who sold more student tickets?

4. SHORT RESPONSE The back-to-back stem-and-leaf plot below shows the lengths (in meters) of the eight best men's and women's final long jump results from the 2004 Olympics. *Compare* the lengths of the jumps by men with those by women.

Lengths (in meters) of Long Jump

Men		Women				
	6	7	8	8	9	
	7	0	0	0	1	
6 5 3 3 2 2 2 0	8					

Key: 0 | 7 | 1 = 7.0 m, 7.1 m

5. SHORT RESPONSE The stem-and-leaf plot shows the number of games lost by 15 NCAA football coaches with the greatest career winning percentages after at least 10 years of coaching.

1	1 2 3 6 7 7 8
2	1 3 3 4 5 9
3	6
4	9

Key: 2 | 1 = 21 games

a. Make a box-and-whisker plot of the data.

b. Tom Osborne had a winning percentage of 83.6% over his career and lost 49 games. Can the number of games lost by Tom Osborne be considered an outlier? *Explain* your reasoning.