1. The average age of Denton Manufacturing’s twenty-four employees is 38.2 years. If three employees retired and their average age was 58, what is the average age of the remaining workers, to the nearest tenth? Show clear work, but you need not explain.

2. For each statement below, make up a list of FIVE scores from 0 to 100 satisfying the conditions. If not possible, explain why not.

(a) The median is 20 and the mode is 50.

(b) The mean is 20 and the mode is 50.

(c) The median is 50 and will change by more than 10 points if a sixth score of 0 is included, but not if a sixth score of 100 is included.

(d) The median is the same as for 10, 50, 60, 20, 30, but the standard deviation is smaller.
3. Sandra got a 58, 67, 75, 72, and 64 on her first five (of six) lab reports in chemistry. What must she earn on the last one in order to get a C (69%) in the course? All reports are out of 100 points, except the last one, which is only out of 50. Justify your answer verbally or computationally.

4. Work Problem 10-B #22 as follows:
   (a) Draw and LABEL an appropriate graph.

   (b) Solve part (a.) as written in the text; show work.

   (c) Solve part (b.) as written in the text; show work.

   (d) Between which two IQ scores will 84.0% of the population’s IQs fall? Show work.