a) Prices ($100) for 117 randomly selected homes.

b) Time (minutes) spent at workout center for 30 randomly selected students.
2. a) Histogram description: (3 pts)
The histogram is mounded to the left (around $75,000 to $100,000) and skewed to the right. The center is around $100,000 and the prices are spread from $50,000 to $225,000.

Box plot description: (2 pts)
The box plot shows a skew to the right (note the mean – center of the diamond is larger than the median – vertical line in box) with a number of potential outliers toward the larger values.

Normal quantile plot description: (2 pts)
The prices form a curve that rises quickly, levels off and then rises quickly at the end. This curve does not follow the straight line indicating a normal distribution.

Comment: (3 pts)
The right skew shape, potential outliers on the high side and the curved pattern of the prices in the normal quantile plot all point to this sample coming from a population whose distribution does not follow a normal model.

b) Histogram description: (3 pts)
The histogram is fairly symmetrical and mounded in the middle. The center is in the 60 to 70 minute range. The values are spread from 30 minutes to 100 minutes.

Box plot description: (2 pts)
The box plot is fairly symmetric (note the mean and median are fairly close). There are no apparent outliers.

Normal quantile plot description: (2 pts)
The times show no distinctive curve and fall fairly close to the line representing a normal distribution.

Comment: (3 pts)
Although not perfect, the fairly symmetric plots and no marked departure from the line representing the normal distribution on the normal quantile plot indicates that this sample could have come from a population whose distribution follows a normal model.