1. D
2. E
3. B
4. B
5. C
6. C
7. B
8. C
9. E
10. B
11. D
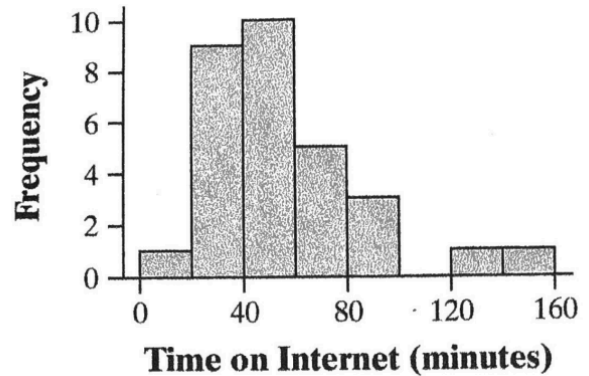
12.

a. A histogram is given to the right.

Time on Internet (minutes)

b. Any point below 30 – 1.5(47) = -40.5 or above 77 + 1.5(47) = 147.5 is an outlier. So, 151 minutes is an outlier.

c. Median and IQR, because the distribution is skewed and has a high outlier.

13.

a. Row totals are 1154, 53, and 1207. Column totals are 785, 375, 47, and 1207.

b. Nondiabetic: 96.1% none and 3.9% one or more.
Prediabetic: 96.5% none and 3.5% one or more.
Diabetic: 80.9% none and 19.1% one or more.

c. The graph is given to the right.
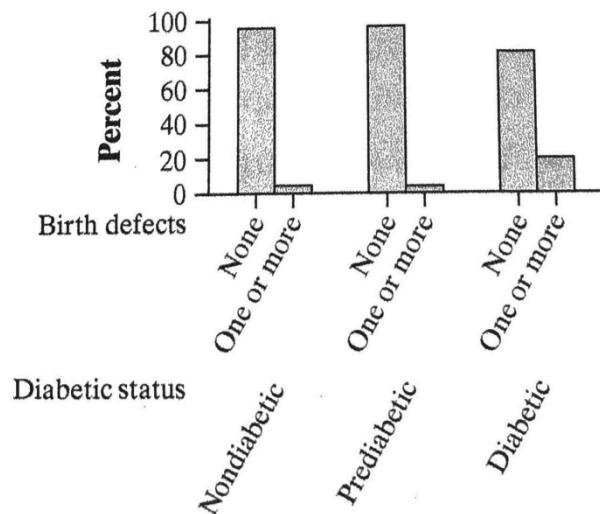
d. Yes. Nondiabetics and prediabetics appear to have babies with birth defects at about the same rate. However, those with diabetes have a much higher rate of babies with birth defects.

14.
    a. Between 550 and 559 hours.

    b. Because it has a higher minimum lifetime or because its lifetimes are more consistent (less variable).

    c. Because it has a higher median lifetime.

15. Side-by-side boxplots and descriptive statistics for both leagues are given below. Both distributions are roughly symmetric, although there are two low outliers in the N. The data suggest that the number of home runs is somewhat less in the NL. All 5 numbers in the 5-number summary are less for the NL teams than for the AL teams. However, there is more variability among the AL teams.
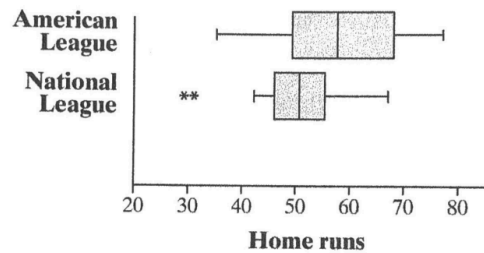
Variable	N	Mean	StDev	Minimum
American League	14	56.93	12.69	35.00
National League	14	50.14	11.13	29.00

Variable	Q_1	Median	Q_3	Maximum
American League	49.00	57.50	68.00	77.00
National League	46.00	50.50	55.00	67.00