Homework Solutions
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Exercise 19

(a) You have to eye-ball the graph as best you can, so your answers may differ slightly from mine. The five-number summary is min $= 26$, $Q_1 = 31$, median $= 39$, $Q_3 = 48$, and max $= 51$.

(b) 15.

(c) Use the first quartile, which appears to be about 30.

(d) Using $Q_1 = 31$ and $Q_3 = 48$, we calculate IQR $= 48 - 31 = 17$.

(e) The STEP is $1.5 \times \text{IQR} = 1.5 \times 17 = 25.5$. Then the lower fence is $Q_1 - \text{STEP} = 31 - 25.5 = 5.5$. So, no, a 20-year-old would not be an outlier.