1. **Solution**
The sample size, n, is 15. We determine the indeces and values of Q1, Q2, and Q3.

Quartile	Formula for i	i	x
Q1	$\lceil 0.25 \times 15 \rceil$	4	44.07
Q2	$\lceil 0.5 \times 15 \rceil$	8	45.25
Q3	$\lceil 0.75 \times 15 \rceil$	12	48.16

We determine the IQR.

$$\begin{aligned} \text{IQR} &= \text{Q3} - \text{Q1} \\ &= 48.16 - 44.07 \\ &= 4.09 \end{aligned}$$

We determine the outlier boundaries.

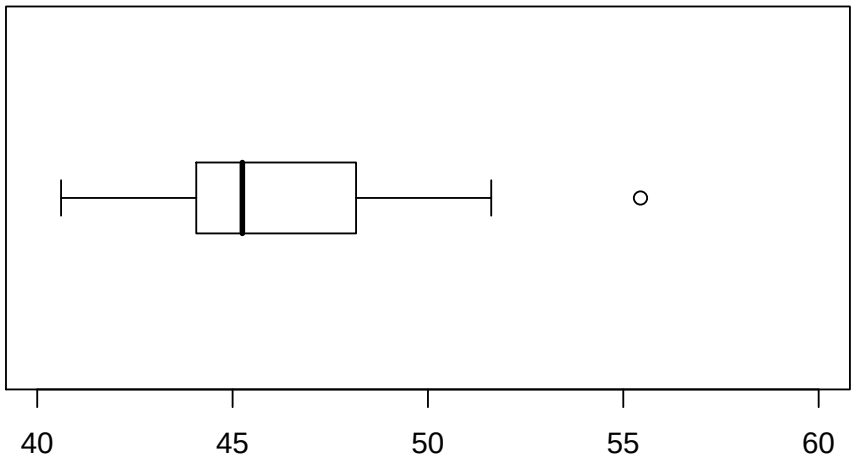
$$\begin{aligned} \text{lower boundary} &= \text{Q1} - 1.5 \times \text{IQR} \\ &= 44.07 - 1.5 \times 4.09 \\ &= 37.935 \end{aligned}$$

$$\begin{aligned} \text{upper boundary} &= \text{Q3} + 1.5 \times \text{IQR} \\ &= 48.16 + 1.5 \times 4.09 \\ &= 54.295 \end{aligned}$$

We determine the outliers.

$$\text{outliers} = \{55.44\}$$

We identify the ends of the whiskers: 40.61 and 51.62. We plot the boxplot.



2. **Solution**
The sample size, n, is 35. We determine the indeces and values of Q1, Q2, and Q3.

Quartile	Formula for i	i	x
Q1	$\lceil 0.25 \times 35 \rceil$	9	37.73
Q2	$\lceil 0.5 \times 35 \rceil$	18	43.93
Q3	$\lceil 0.75 \times 35 \rceil$	27	45.87

We determine the IQR.

$$\begin{aligned} \text{IQR} &= \text{Q3} - \text{Q1} \\ &= 45.87 - 37.73 \\ &= 8.14 \end{aligned}$$

We determine the outlier boundaries.

$$\begin{aligned} \text{lower boundary} &= \text{Q1} - 1.5 \times \text{IQR} \\ &= 37.73 - 1.5 \times 8.14 \\ &= 25.52 \end{aligned}$$

$$\begin{aligned} \text{upper boundary} &= \text{Q3} + 1.5 \times \text{IQR} \\ &= 45.87 + 1.5 \times 8.14 \\ &= 58.08 \end{aligned}$$

We determine the outliers.

$$\text{outliers} = \{16.03\}$$

We identify the ends of the whiskers: 27.55 and 49.26. We plot the boxplot.