1. **Solution**
The sample size, n, is 54. We determine the indeces and values of Q1, Q2, and Q3.

Quartile	Formula for i	i	x
Q1	$\lceil 0.25 \times 54 \rceil$	14	45.69
Q2	$\lceil 0.5 \times 54 \rceil$	27	49.53
Q3	$\lceil 0.75 \times 54 \rceil$	41	55.82

We determine the IQR.

$$\begin{aligned} \text{IQR} &= \text{Q3} - \text{Q1} \\ &= 55.82 - 45.69 \\ &= 10.13 \end{aligned}$$

We determine the outlier boundaries.

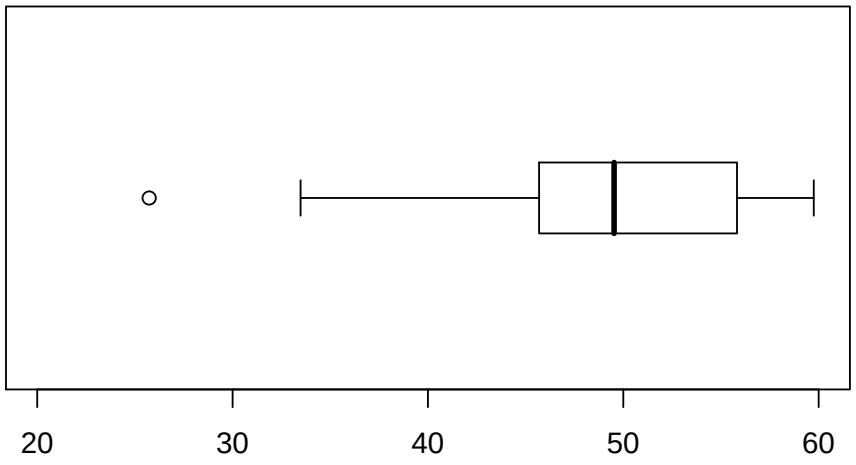
$$\begin{aligned} \text{lower boundary} &= \text{Q1} - 1.5 \times \text{IQR} \\ &= 45.69 - 1.5 \times 10.13 \\ &= 30.495 \end{aligned}$$

$$\begin{aligned} \text{upper boundary} &= \text{Q3} + 1.5 \times \text{IQR} \\ &= 55.82 + 1.5 \times 10.13 \\ &= 71.015 \end{aligned}$$

We determine the outliers.

$$\text{outliers} = \{25.73\}$$

We identify the ends of the whiskers: 33.48 and 59.75. We plot the boxplot.



2. **Solution**
The sample size, n, is 21. We determine the indeces and values of Q1, Q2, and Q3.

Quartile	Formula for i	i	x
Q1	$\lceil 0.25 \times 21 \rceil$	6	66.54
Q2	$\lceil 0.5 \times 21 \rceil$	11	67.84
Q3	$\lceil 0.75 \times 21 \rceil$	16	73.88

We determine the IQR.

$$\begin{aligned} \text{IQR} &= \text{Q3} - \text{Q1} \\ &= 73.88 - 66.54 \\ &= 7.34 \end{aligned}$$

We determine the outlier boundaries.

$$\begin{aligned} \text{lower boundary} &= \text{Q1} - 1.5 \times \text{IQR} \\ &= 66.54 - 1.5 \times 7.34 \\ &= 55.53 \end{aligned}$$

$$\begin{aligned} \text{upper boundary} &= \text{Q3} + 1.5 \times \text{IQR} \\ &= 73.88 + 1.5 \times 7.34 \\ &= 84.89 \end{aligned}$$

We determine the outliers.

$$\text{outliers} = \{48.53\}$$

We identify the ends of the whiskers: 61.09 and 79.93. We plot the boxplot.