1. **Solution**
The sample size, n, is 20. We determine the indeces and values of Q1, Q2, and Q3.

Quartile	Formula for i	i	x
Q1	$\lceil 0.25 \times 20 \rceil$	5	54.53
Q2	$\lceil 0.5 \times 20 \rceil$	10	54.92
Q3	$\lceil 0.75 \times 20 \rceil$	15	55.45

We determine the IQR.

$$\begin{aligned} \text{IQR} &= \text{Q3} - \text{Q1} \\ &= 55.45 - 54.53 \\ &= 0.92 \end{aligned}$$

We determine the outlier boundaries.

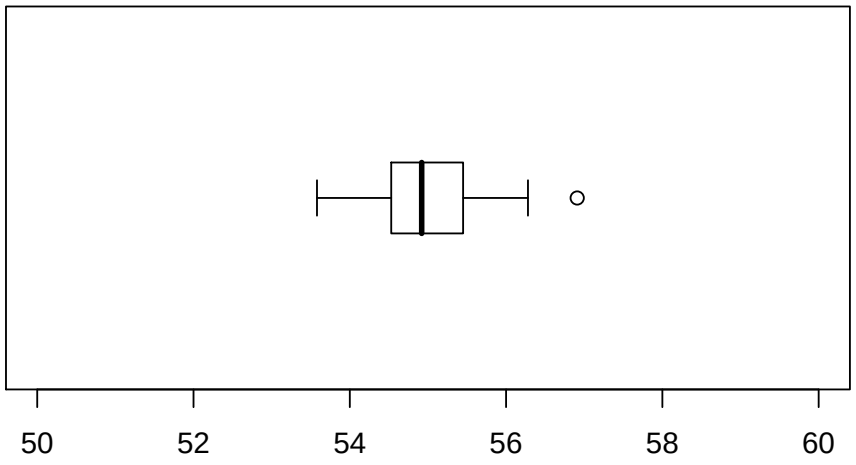
$$\begin{aligned} \text{lower boundary} &= \text{Q1} - 1.5 \times \text{IQR} \\ &= 54.53 - 1.5 \times 0.92 \\ &= 53.15 \end{aligned}$$

$$\begin{aligned} \text{upper boundary} &= \text{Q3} + 1.5 \times \text{IQR} \\ &= 55.45 + 1.5 \times 0.92 \\ &= 56.83 \end{aligned}$$

We determine the outliers.

$$\text{outliers} = \{56.91\}$$

We identify the ends of the whiskers: 53.58 and 56.28. We plot the boxplot.



2. **Solution**
The sample size, n, is 27. We determine the indeces and values of Q1, Q2, and Q3.

Quartile	Formula for i	i	x
Q1	$\lceil 0.25 \times 27 \rceil$	7	10.21
Q2	$\lceil 0.5 \times 27 \rceil$	14	10.56
Q3	$\lceil 0.75 \times 27 \rceil$	21	10.89

We determine the IQR.

$$\begin{aligned} \text{IQR} &= \text{Q3} - \text{Q1} \\ &= 10.89 - 10.21 \\ &= 0.68 \end{aligned}$$

We determine the outlier boundaries.

$$\begin{aligned} \text{lower boundary} &= \text{Q1} - 1.5 \times \text{IQR} \\ &= 10.21 - 1.5 \times 0.68 \\ &= 9.19 \end{aligned}$$

$$\begin{aligned} \text{upper boundary} &= \text{Q3} + 1.5 \times \text{IQR} \\ &= 10.89 + 1.5 \times 0.68 \\ &= 11.91 \end{aligned}$$

We determine the outliers.

$$\text{outliers} = \{12.16\}$$

We identify the ends of the whiskers: 10.02 and 11.72. We plot the boxplot.