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	54.41
Q2	$\lceil 0.5 \times 54 \rceil$	27	54.81
Q3	$\lceil 0.75 \times 54 \rceil$	41	55.28

We determine the IQR.

$$\begin{aligned} \text{IQR} &= \text{Q3} - \text{Q1} \\ &= 55.28 - 54.41 \\ &= 0.87 \end{aligned}$$

We determine the outlier boundaries.

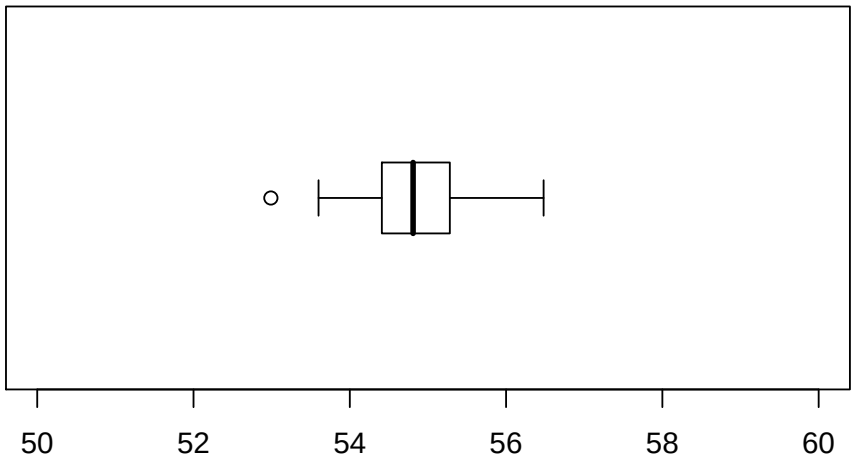
$$\begin{aligned} \text{lower boundary} &= \text{Q1} - 1.5 \times \text{IQR} \\ &= 54.41 - 1.5 \times 0.87 \\ &= 53.105 \end{aligned}$$

$$\begin{aligned} \text{upper boundary} &= \text{Q3} + 1.5 \times \text{IQR} \\ &= 55.28 + 1.5 \times 0.87 \\ &= 56.585 \end{aligned}$$

We determine the outliers.

$$\text{outliers} = \{52.99\}$$

We identify the ends of the whiskers: 53.6 and 56.48. 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	51.36
Q2	$\lceil 0.5 \times 27 \rceil$	14	51.51
Q3	$\lceil 0.75 \times 27 \rceil$	21	51.64

We determine the IQR.

$$\begin{aligned} \text{IQR} &= \text{Q3} - \text{Q1} \\ &= 51.64 - 51.36 \\ &= 0.28 \end{aligned}$$

We determine the outlier boundaries.

$$\begin{aligned} \text{lower boundary} &= \text{Q1} - 1.5 \times \text{IQR} \\ &= 51.36 - 1.5 \times 0.28 \\ &= 50.94 \end{aligned}$$

$$\begin{aligned} \text{upper boundary} &= \text{Q3} + 1.5 \times \text{IQR} \\ &= 51.64 + 1.5 \times 0.28 \\ &= 52.06 \end{aligned}$$

We determine the outliers.

$$\text{outliers} = \{50.92\}$$

We identify the ends of the whiskers: 51.04 and 52.02. We plot the boxplot.