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	62.41
Q2	$\lceil 0.5 \times 54 \rceil$	27	63.88
Q3	$\lceil 0.75 \times 54 \rceil$	41	66.98

We determine the IQR.

$$\begin{aligned} \text{IQR} &= \text{Q3} - \text{Q1} \\ &= 66.98 - 62.41 \\ &= 4.57 \end{aligned}$$

We determine the outlier boundaries.

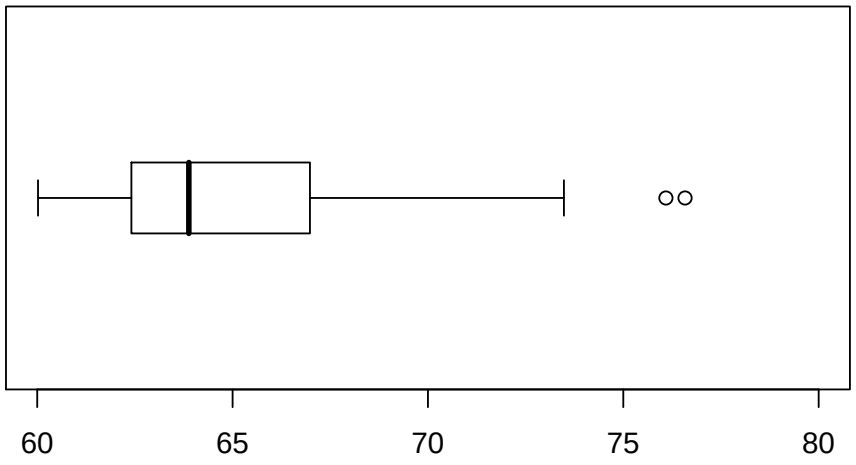
$$\begin{aligned} \text{lower boundary} &= \text{Q1} - 1.5 \times \text{IQR} \\ &= 62.41 - 1.5 \times 4.57 \\ &= 55.555 \end{aligned}$$

$$\begin{aligned} \text{upper boundary} &= \text{Q3} + 1.5 \times \text{IQR} \\ &= 66.98 + 1.5 \times 4.57 \\ &= 73.835 \end{aligned}$$

We determine the outliers.

$$\text{outliers} = \{76.09, 76.58\}$$

We identify the ends of the whiskers: 60.02 and 73.48. We plot the boxplot.



2. **Solution**
The sample size, n, is 48. We determine the indeces and values of Q1, Q2, and Q3.

Quartile	Formula for i	i	x
Q1	$\lceil 0.25 \times 48 \rceil$	12	71.96
Q2	$\lceil 0.5 \times 48 \rceil$	24	90.31
Q3	$\lceil 0.75 \times 48 \rceil$	36	101.1

We determine the IQR.

$$\begin{aligned} \text{IQR} &= \text{Q3} - \text{Q1} \\ &= 101.1 - 71.96 \\ &= 29.14 \end{aligned}$$

We determine the outlier boundaries.

$$\begin{aligned} \text{lower boundary} &= \text{Q1} - 1.5 \times \text{IQR} \\ &= 71.96 - 1.5 \times 29.14 \\ &= 28.25 \end{aligned}$$

$$\begin{aligned} \text{upper boundary} &= \text{Q3} + 1.5 \times \text{IQR} \\ &= 101.1 + 1.5 \times 29.14 \\ &= 144.81 \end{aligned}$$

We determine the outliers.

$$\text{outliers} = \{19.63\}$$

We identify the ends of the whiskers: 45.84 and 108.74. We plot the boxplot.