1. **Solution**
The sample size, n, is 24. We determine the indeces and values of Q1, Q2, and Q3.

Quartile	Formula for i	i	x
Q1	$\lceil 0.25 \times 24 \rceil$	6	39.43
Q2	$\lceil 0.5 \times 24 \rceil$	12	40.22
Q3	$\lceil 0.75 \times 24 \rceil$	18	40.87

We determine the IQR.

$$\begin{aligned} \text{IQR} &= \text{Q3} - \text{Q1} \\ &= 40.87 - 39.43 \\ &= 1.44 \end{aligned}$$

We determine the outlier boundaries.

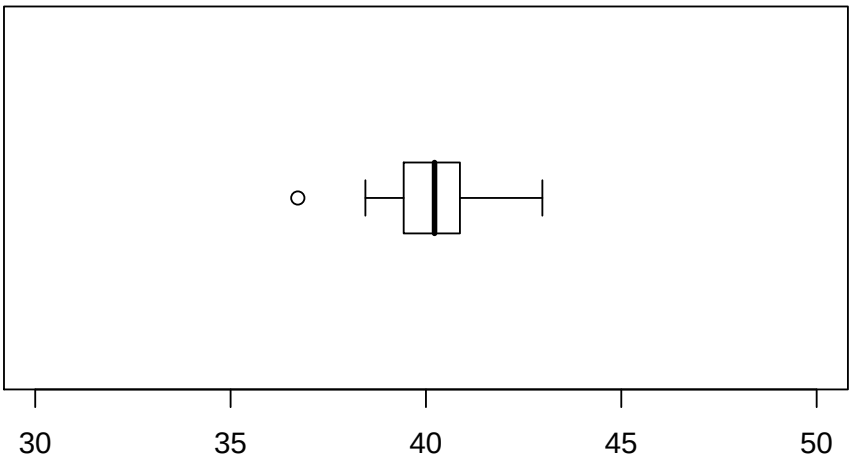
$$\begin{aligned} \text{lower boundary} &= \text{Q1} - 1.5 \times \text{IQR} \\ &= 39.43 - 1.5 \times 1.44 \\ &= 37.27 \end{aligned}$$

$$\begin{aligned} \text{upper boundary} &= \text{Q3} + 1.5 \times \text{IQR} \\ &= 40.87 + 1.5 \times 1.44 \\ &= 43.03 \end{aligned}$$

We determine the outliers.

$$\text{outliers} = \{36.72\}$$

We identify the ends of the whiskers: 38.45 and 42.98. We plot the boxplot.



2. **Solution**
The sample size, n, is 45. We determine the indeces and values of Q1, Q2, and Q3.

Quartile	Formula for i	i	x
Q1	$\lceil 0.25 \times 45 \rceil$	12	25.55
Q2	$\lceil 0.5 \times 45 \rceil$	23	29.57
Q3	$\lceil 0.75 \times 45 \rceil$	34	34.81

We determine the IQR.

$$\begin{aligned} \text{IQR} &= \text{Q3} - \text{Q1} \\ &= 34.81 - 25.55 \\ &= 9.26 \end{aligned}$$

We determine the outlier boundaries.

$$\begin{aligned} \text{lower boundary} &= \text{Q1} - 1.5 \times \text{IQR} \\ &= 25.55 - 1.5 \times 9.26 \\ &= 11.66 \end{aligned}$$

$$\begin{aligned} \text{upper boundary} &= \text{Q3} + 1.5 \times \text{IQR} \\ &= 34.81 + 1.5 \times 9.26 \\ &= 48.7 \end{aligned}$$

We determine the outliers.

$$\text{outliers} = \{50.62\}$$

We identify the ends of the whiskers: 20.07 and 47.84. We plot the boxplot.