1. **Solution**
The sample size, n, is 36. We determine the indeces and values of Q1, Q2, and Q3.

Quartile	Formula for i	i	x
Q1	$\lceil 0.25 \times 36 \rceil$	9	112.43
Q2	$\lceil 0.5 \times 36 \rceil$	18	117.77
Q3	$\lceil 0.75 \times 36 \rceil$	27	123.88

We determine the IQR.

$$\begin{aligned} \text{IQR} &= \text{Q3} - \text{Q1} \\ &= 123.88 - 112.43 \\ &= 11.45 \end{aligned}$$

We determine the outlier boundaries.

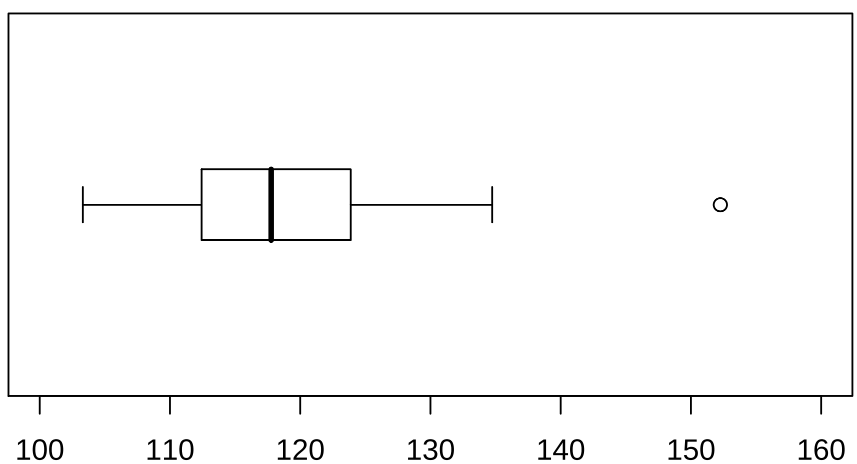
$$\begin{aligned} \text{lower boundary} &= \text{Q1} - 1.5 \times \text{IQR} \\ &= 112.43 - 1.5 \times 11.45 \\ &= 95.255 \end{aligned}$$

$$\begin{aligned} \text{upper boundary} &= \text{Q3} + 1.5 \times \text{IQR} \\ &= 123.88 + 1.5 \times 11.45 \\ &= 141.055 \end{aligned}$$

We determine the outliers.

$$\text{outliers} = \{152.26\}$$

We identify the ends of the whiskers: 103.31 and 134.74. We plot the boxplot.



2. **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	76.61
Q2	$\lceil 0.5 \times 24 \rceil$	12	78
Q3	$\lceil 0.75 \times 24 \rceil$	18	78.98

We determine the IQR.

$$\begin{aligned}\text{IQR} &= \text{Q3} - \text{Q1}\\ &= 78.98 - 76.61\\ &= 2.37\end{aligned}$$

We determine the outlier boundaries.

$$\begin{aligned}\text{lower boundary} &= \text{Q1} - 1.5 \times \text{IQR}\\ &= 76.61 - 1.5 \times 2.37\\ &= 73.055\end{aligned}$$

$$\begin{aligned}\text{upper boundary} &= \text{Q3} + 1.5 \times \text{IQR}\\ &= 78.98 + 1.5 \times 2.37\\ &= 82.535\end{aligned}$$

We determine the outliers.

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

We identify the ends of the whiskers: 73.17 and 79.89. We plot the boxplot.