Practice – Part 1

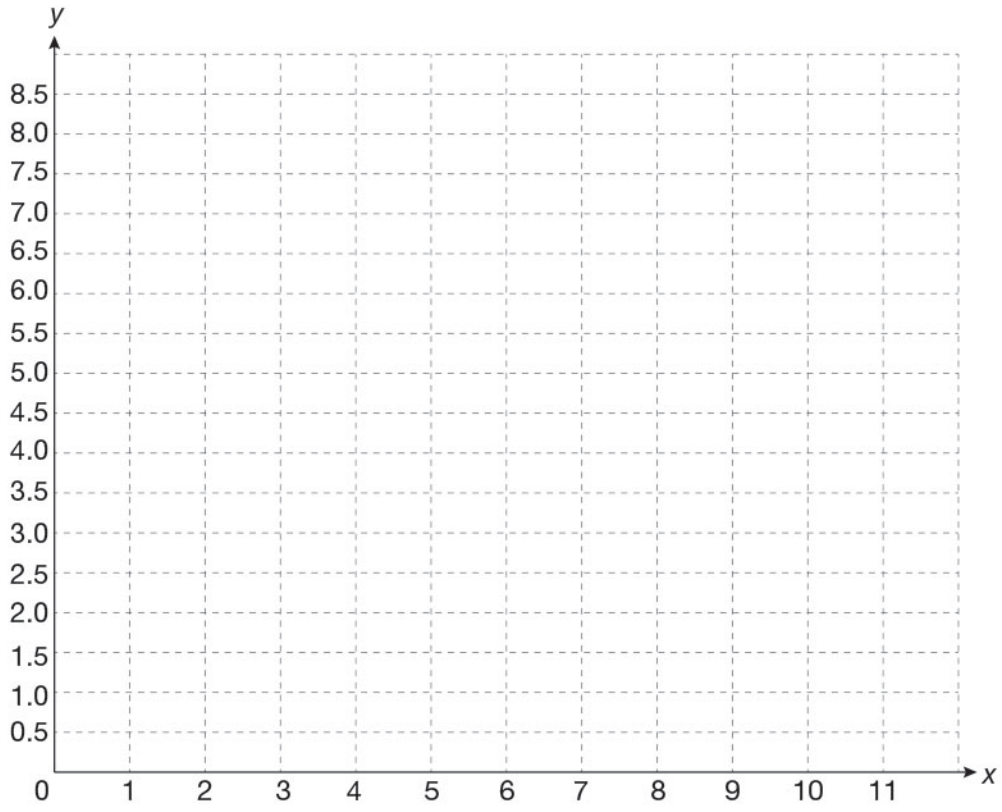
Instructions: Answer each of the following practice questions on a separate piece of paper. Step by step solutions are provided under the Solutions tab. You will learn the material more thoroughly if you complete the questions before checking the answers under the Solutions tab in Moodle.

1. Kami and Justine complete an experiment in science class to determine the average reaction rate of a chemical reaction. The results are recorded in the table below.

Trial	Reaction Time (s)
1	7.5
2	7.7
3	7.1
4	6.8
5	7.9
6	4.8
7	7.4
8	2.5
9	8.0
10	7.7
11	7.5

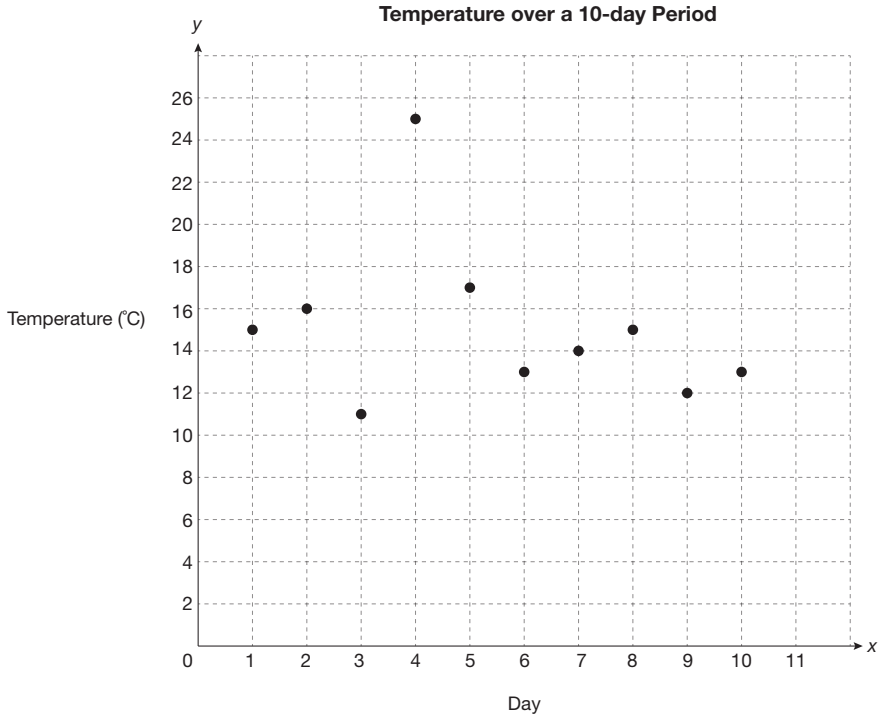
a. Calculate the mean to the nearest tenth.

b. Plot the data. Circle and state any outliers.



c. Calculate the trimmed mean to the nearest tenth.
d. Which best represents the average of the data: the mean or the trimmed mean?

2. Use the scatter plot to answer the questions below.



a. Circle and state any outliers in the data.
b. Calculate the mean.
c. Determine the median.
d. A student calculated the trimmed mean to be $14^{\circ}\mathrm{C}$. The calculation is shown below. Identify the error in the calculation.

$$\begin{aligned}\overline{x} &= \frac{\text{sum of the values in the data set}}{\text{total number of values in the data set}} \\ &= \frac{11+12+13+13+14+15+15+16+17}{9} \\ &= \frac{126}{9} \\ &= 14\end{aligned}$$

e. Calculate the trimmed mean.
f. Which is closer in value to the median: the mean or the trimmed mean?