1. Three potential employees take an aptitude test, where each person takes a different version of the test. Their scores are reported below.

   - Toby got a score of 91.4. This version has a mean of 71 and standard deviation of 12.
   - Angela got a score of 281.7. This version has a mean of 267 and standard deviation of 21.
   - Pam got a score of 7.75. This version has a mean of 7.3 and a standard deviation of 0.5.

   Which applicant performed the best **relative** to the others? Show your work to justify your answer.

   Toby: $z = \frac{91.4-71}{12} = 1.7$ Angela: $z = \frac{281.7-267}{21} = 0.7$ Pam: $z = \frac{7.75-7.3}{0.5} = 0.9$

   Toby performed best relative to the others taking the test.

2. The following list represents the times, in minutes, that it took 10 randomly-selected fishermen at Issaqueena Lake to get the first bite on their hook.

   3, 20, 21, 21, 23, 25, 28, 30, 31, 32

   (a) Write the **five-number summary** for the data. Label the values and show any calculations.

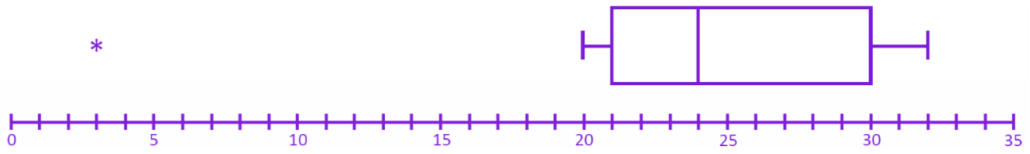
   Min $= 3$, $Q_1 = 21$, $M = \frac{23+25}{2} = 24$, $Q_3 = 30$, Max $= 32$

   (b) Calculate the **fences** and state whether there are any **outliers**.

   Lower Fence: $Q_1 - 1.5(IQR) = 21 - 1.5(9) = 7.5 \Rightarrow$ 3 is a low outlier.

   Upper Fence: $Q_3 + 1.5(IQR) = 30 + 1.5(9) = 43.5 \Rightarrow$ No high outliers.

   (c) Construct a **boxplot**. Include a title with units for your horizontal axis.



   (d) Describe the **distribution** of the boxplot you constructed by discussing its shape, center, spread, and any outliers.

   The distribution of bite times is skewed left with one low outlier of 3 minutes. It has a median of 24 minutes and an IQR of 9 minutes.