# Interpreting Spread

Referenced from lesson [Spread of a Data Set](https://www.bootstrapworld.org/materials/spring2021/en-us/courses/data-science/lessons/measures-of-spread/index.shtml) (Spring, 2021)

Consider the following dataset, representing the annual income of ten people.

All numbers represent *thousands of dollars* (so 14 means "$14,000"):

60, 10, 21, 180, 14, 20, 45, 35, 45, 170

1. In the space below, rewrite this dataset in **sorted order**.

1. In the table below, compute the **measures of center** for this dataset.

| Mean (Average) | Median | Mode(s) |
| --- | --- | --- |
|  |  |  |

1. In the table below, compute the **five number summary** of this dataset.

| Minimum | Q1 | Q2 (Median) | Q3 | Maximum |
| --- | --- | --- | --- | --- |
|  |  |  |  |  |

1. On the number line below, draw a **box plot** for this dataset.



1. The following statements are *correct* …​ but misleading. Write down the reason why.

| **Statement** | **Why it’s misleading** |
| --- | --- |
| “They’re rich! The average person makes $60k dollars!” |  |
| “It’s a middle-income list: the most common salary is $45k/yr!” |  |
| “This group is very low-income, the most common salary range is from $10k-$25k!” |  |

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