# What are the class boundaries and can you provide examples?

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Class boundaries refer to the numerical values that separate one class from another in a data set. They are used to determine the range of values that fall within each class and provide a more precise representation of the data. For example, if the class interval is 10 and the lower boundary is 10, then the class boundaries would be 9.5 and 10.5. This means that any value between 9.5 and 10.5 would fall within that class. Class boundaries are important in statistical analysis as they help to accurately classify data and make meaningful comparisons between different groups.

## Find Class Boundaries (With Examples)

## In a frequency distribution, class boundaries are the values that separate the classes.

## We use the following steps to calculate the class boundaries in a frequency distribution:

## 1. Subtract the upper class limit for the first class from the lower class limit for the second class.

## 2. Divide the result by two.

## 3. Subtract the result from the lower class limit and add the result to the the upper class limit for each class.

## The following examples show how to use these steps in practice to calculate class boundaries in a frequency distribution.

### Example 1: Calculating Class Boundaries

## Suppose we have the following frequency distribution that represents the number of wins by various basketball teams:

| Wins | Frequency |
|---|---|
| 26 - 30 | 2 |
| 31 - 35 | 3 |
| 36 - 40 | 7 |
| 41 - 45 | 8 |
| 46 - 50 | 4 |
| 51 - 55 | 3 |
| 56 - 60 | 2 |
| 61 - 65 | 1 |



## Use the following steps to calculate the class boundaries:

### 1. Subtract the upper class limit for the first class from the lower class limit for the second class.

**The upper class limit for the first class is 30 and the lower class limit for the second class is 31. Thus, we get: 31 - 30 = 1.**

31 - 30 = 1

| Wins | Frequency |
|---|---|
| 26 - 30 | 2 |
| 31 - 35 | 3 |
| 36 - 40 | 7 |
| 41 - 45 | 8 |
| 46 - 50 | 4 |
| 51 - 55 | 3 |
| 56 - 60 | 2 |
| 61 - 65 | 1 |

**2. Divide the result by two.**

**Next, we divide the result by 2. So, we get 1/2 = 0.5.**

**3. Subtract the result from the lower class limit and add the result to the the upper class limit for each class.**

**Lastly, we subtract 0.5 from the lower class limit and add 0.5 to the upper class limit for each class:**