## Summary Statistics: Takeaways 🖻

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## Syntax

• Returning a count of rows in a table:

```
SELECT COUNT(Major)
FROM recent_grads
```

• Returning the minimum value of a table:

```
SELECT MIN(ShareWomen)
FROM recent_grads;
```

• Computing the sum of a column as an integer:

```
SELECT SUM(Total)
FROM recent_grads
```

• Computing the sum of a column as a float value:

```
SELECT TOTAL(Total)
FROM recent_grads
```

• Specifying a name for a column in the results:

```
SELECT (*) AS "Total Majors" # also works without AS
FROM recent grads
```

• Returning the unique values of a column:

```
SELECT DISTINCT Major_category
FROM recent_grads
```

• Performing an arithmetic operation on a table:

```
SELECT P75th - P25th quartile_spread
FROM recent_grads
```

## Concepts

- Summary statistics are used to summarize a set of observations.
- Everything is considered a table in SQL. One advantage of this simplification is that it's a common and visual representation that makes SQL approachable for a much wider audience.
- Datasets and calculations that aren't well suited for a table representation must be converted to be used in a SQL database environment.
- Aggregate functions are applied over columns of values and return a single value.
- The **COUNT** clause can be used on any column while aggregate functions can only be used on numeric columns.
- SQL supports that standard arithmetic operators (+, -, \*, /).
- Arithmetic between two floats returns a float.
- Arithmetic between a float and an integer returns a float.
- Arithmetic between two integers returns an integer.

## Resources

- Aggregare Functions
- <u>Summary Statistics</u>



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