✓ **Congratulations! You passed!**

**Grade received** 100%    **To pass** 80% or higher

**Go to next item**

# \*Weekly challenge 4\*

**Latest Submission Grade 100%**

**1.** In row 1 of the following spreadsheet, the words rank, name, population, and county are called what?

|    | A    | B             | C          | D                                  |
|----|------|---------------|------------|------------------------------------|
| 1  | **Rank** | **Name**  | **Population** | **County**                      |
| 2  | 1    | Charlotte     | 885,708    | Mecklenburg                        |
| 3  | 2    | Raleigh       | 474,069    | Wake (seat), Durham                |
| 4  | 3    | Greensboro    | 296,710    | Guilford                           |
| 5  | 4    | Durham        | 278,993    | Durham (seat), Wake, Orange        |
| 6  | 5    | Winston-Salem | 247,945    | Forsyth                            |
| 7  | 6    | Fayetteville  | 211,657    | Cumberland                         |
| 8  | 7    | Cary          | 170,282    | Wake, Chatham                      |
| 9  | 8    | Wilmington    | 123,784    | New Hanover                        |
| 10 | 9    | High Point    | 112,791    | Guilford, Randolph, Davidson, Forsyth |
| 11 | 10   | Concord       | 96,341     | Cabarrus                           |

**1 / 1 point**

○ Descriptors

○ Characteristics

◉ Attributes

○ Criteria

✓ **Correct**
These words are attributes, referring to the information in the columns below. An attribute is a characteristic or quality of data used to label a column in a table.

**2.** In the following spreadsheet, the observation of Greensboro describes all of the data in row 4.

|    | A    | B             | C          | D                                  |
|----|------|---------------|------------|------------------------------------|
| 1  | **Rank** | **Name**  | **Population** | **County**                      |
| 2  | 1    | Charlotte     | 885,708    | Mecklenburg                        |
| 3  | 2    | Raleigh       | 474,069    | Wake (seat), Durham                |
| 4  | 3    | Greensboro    | 296,710    | Guilford                           |
| 5  | 4    | Durham        | 278,993    | Durham (seat), Wake, Orange        |
| 6  | 5    | Winston-Salem | 247,945    | Forsyth                            |
| 7  | 6    | Fayetteville  | 211,657    | Cumberland                         |
| 8  | 7    | Cary          | 170,282    | Wake, Chatham                      |
| 9  | 8    | Wilmington    | 123,784    | New Hanover                        |
| 10 | 9    | High Point    | 112,791    | Guilford, Randolph, Davidson, Forsyth |
| 11 | 10   | Concord       | 96,341     | Cabarrus                           |

**1 / 1 point**

◉ True

○ False

✓ **Correct**
The observation of Greensboro describes all of the data in row 4. An observation is all of the attributes for something contained in a row of a data table.

**3.** If a data analyst wants to list the cities in this spreadsheet alphabetically, instead of numerically, what feature can they use in column B?

1 / 1 point

|    | A    | B             | C          | D                                      |
|----|------|---------------|------------|----------------------------------------|
| 1  | **Rank** | **Name**  | **Population** | **County**                         |
| 2  | 1    | Charlotte     | 885,708    | Mecklenburg                            |
| 3  | 2    | Raleigh       | 474,069    | Wake (seat), Durham                    |
| 4  | 3    | Greensboro    | 296,710    | Guilford                               |
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| 6  | 5    | Winston-Salem | 247,945    | Forsyth                                |
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| 8  | 7    | Cary          | 170,282    | Wake, Chatham                          |
| 9  | 8    | Wilmington    | 123,784    | New Hanover                            |
| 10 | 9    | High Point    | 112,791    | Guilford, Randolph, Davidson, Forsyth  |
| 11 | 10   | Concord       | 96,341     | Cabarrus                               |

- ⦿ Sort range

- ◯ Randomize range

- ◯ Name range

- ◯ Organize range

✓ **Correct**
Sort range would be used to alphabetize the city names in column B. Sorting a range of data from A to Z helps data analysts organize and find data more quickly.

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**4.** A data analyst types =POPULATION(C2:C11) to find the average population of the cities in this spreadsheet. However, they realize they used the wrong formula. What syntax will correct this function?

1 / 1 point

|    | A    | B             | C          | D                                      |
|----|------|---------------|------------|----------------------------------------|
| 1  | **Rank** | **Name**  | **Population** | **County**                         |
| 2  | 1    | Charlotte     | 885,708    | Mecklenburg                            |
| 3  | 2    | Raleigh       | 474,069    | Wake (seat), Durham                    |
| 4  | 3    | Greensboro    | 296,710    | Guilford                               |
| 5  | 4    | Durham        | 278,993    | Durham (seat), Wake, Orange            |
| 6  | 5    | Winston-Salem | 247,945    | Forsyth                                |
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| 11 | 10   | Concord       | 96,341     | Cabarrus                               |

- ⦿ =AVERAGE(C2:C11)

- ◯ AVERAGE(C2:C11)

- ◯ =AVERAGE(C2-C11)

- ◯ AVERAGE(C2-C11)

✓ **Correct**
The correct AVERAGE function syntax is =AVERAGE(C2:C11)**.** AVERAGE returns an average of values from a selected range. C2:C11 is the specified range.

---

**5.** You are working with a database table named *genre* that contains data about music genres. You want to review all the columns in the table.

1 / 1 point

You write the SQL query below. Add a FROM clause that will retrieve the data from the *genre* table.

1    SELECT

```
1   SELECT
2   *
3   FROM
4   genre
```

Run

Reset

```
+----------+--------------------+
| genre_id | name               |
+----------+--------------------+
|        1 | Rock               |
|        2 | Jazz               |
|        3 | Metal              |
|        4 | Alternative & Punk |
|        5 | Rock And Roll      |
|        6 | Blues              |
|        7 | Latin              |
|        8 | Reggae             |
|        9 | Pop                |
|       10 | Soundtrack         |
|       11 | Bossa Nova         |
|       12 | Easy Listening     |
|       13 | Heavy Metal        |
|       14 | R&B/Soul           |
|       15 | Electronica/Dance  |
|       16 | World              |
|       17 | Hip Hop/Rap        |
|       18 | Science Fiction    |
|       19 | TV Shows           |
|       20 | Sci Fi & Fantasy   |
|       21 | Drama              |
|       22 | Comedy             |
|       23 | Alternative        |
|       24 | Classical          |
|       25 | Opera              |
+----------+--------------------+
```

What is the name of the genre with ID number 3?

◉ Metal

◯ Jazz

◯ Blues

◯ Rock

✓ **Correct**

The clause `FROM genre` will retrieve the data from the *genre* table. The complete query is `SELECT * FROM genre`. The FROM clause specifies which database table to query. The name of the genre with ID number 3 is Metal.

**6.** You are working with a database table that contains invoice data. The *customer_id* column lists the ID number for each customer. You are interested in invoice data for the customer with ID number 28.

1 / 1 point

You write the SQL query below. Add a WHERE clause that will return only data about the customer with ID number 28.

```
1   SELECT
2   *
3   FROM
4   invoice
5   where
6   customer_id = 28;
```

Run

Reset

```
+------------+-------------+---------------------+---------------+----------------+---------------+-----------------.
| invoice_id | customer_id | invoice_date        | billing_address | billing_city   | billing_state | billing_country |
+------------+-------------+---------------------+---------------+----------------+---------------+-----------------.
|         71 |          28 | 2009-11-07 00:00:00 | 302 S 700 E   | Salt Lake City | UT            | USA             |
|         82 |          28 | 2009-12-18 00:00:00 | 302 S 700 E   | Salt Lake City | UT            | USA             |
|        137 |          28 | 2010-08-18 00:00:00 | 302 S 700 E   | Salt Lake City | UT            | USA             |
|        266 |          28 | 2012-03-24 00:00:00 | 302 S 700 E   | Salt Lake City | UT            | USA             |
|        289 |          28 | 2012-06-26 00:00:00 | 302 S 700 E   | Salt Lake City | UT            | USA             |
|        311 |          28 | 2012-09-28 00:00:00 | 302 S 700 E   | Salt Lake City | UT            | USA             |
|        363 |          28 | 2013-05-19 00:00:00 | 302 S 700 E   | Salt Lake City | UT            | USA             |
+------------+-------------+---------------------+---------------+----------------+---------------+-----------------.
```

What is the billing city for the customer with ID number 28?

◯ Buenos Aires

◯ Bangalore

◯ Dijon

◉ Salt Lake City

**7.** A data analyst creates the following visualization to clearly demonstrate how much more populous Charlotte is than the next-largest North Carolina city, Raleigh. It's called a line chart.

1 / 1 point

**The Populations of the 10 Largest North Carolina Cities**
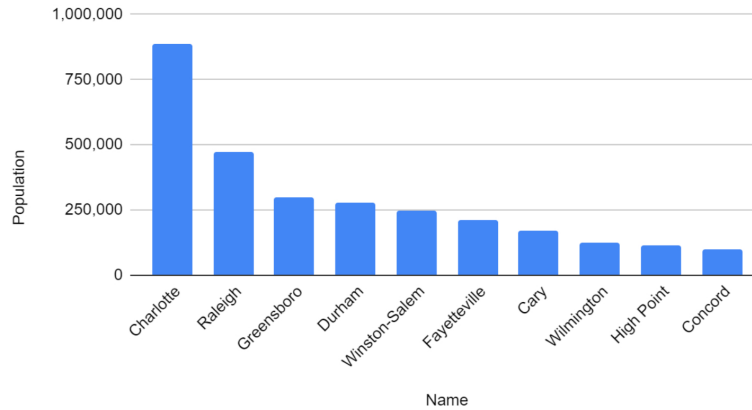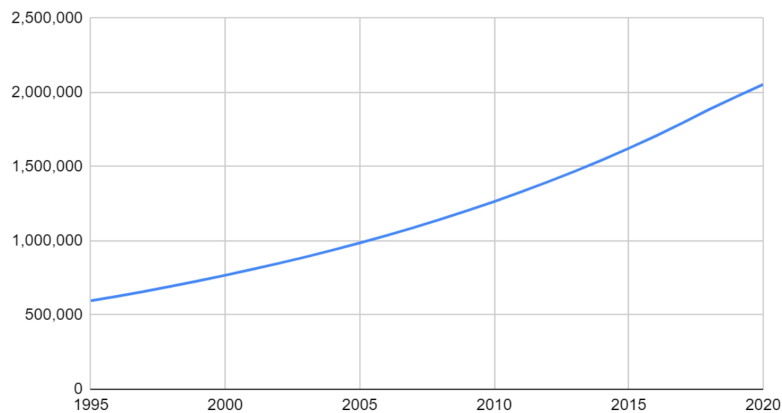


○ True

◉ False

**8.** A data analyst wants to demonstrate how the population in Charlotte has increased over time. They create the chart below. What is this type of chart called?

1 / 1 point

Charlotte, NC, yearly population increase 1995-2020



○ Bar chart

○ Column chart

○ Area chart

◉ Line chart

This is a line chart. Line charts are effective for demonstrating trends and patterns, such as how population changes over time.

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