Congratulations! You passed!

Grade received 100% To pass 80% or higher

Go to next item

Weekly challenge 4

Latest Submission Grade 100%

1. Which of the following tasks can you complete with ggplot2 features? Select all that apply. **1 / 1 point**

- [x] Customize the visual features of a plot

  Correct
  ggplot2 includes features that let you create many different types of plots, customize the visual features of a plot, and add labels and annotations to a plot.

- [x] Create many different types of plots

  Correct
  ggplot2 includes features that let you create many different types of plots, customize the visual features of a plot, and add labels and annotations to a plot.

- [x] Add labels and annotations to a plot

  Correct
  ggplot2 includes features that let you create many different types of plots, customize the visual features of a plot, and add labels and annotations to a plot.

- [ ] Automatically clean data before creating a plot

2. Fill in the blank: In ggplot2, you use the ____ to add layers to your plot. **1 / 1 point**

- (•) plus sign (+)
- ( ) equal sign (=)
- ( ) ampersand symbol (&)
- ( ) pipe operator (%>%)

Correct
In ggplot2, you use the plus sign (+) to add layers to your plot.

3. A data analyst creates a plot using the following code chunk: **1 / 1 point**

```
ggplot(data = penguins) +
    geom_point(mapping = aes(x = flipper_length_mm, y = body_mass_g))
```

Which of the following represents an aesthetic attribute in the code chunk? Select all that apply.

- [x] `y`

  Correct
  The two aesthetic attributes in the code are *x* and *y*. The aesthetic *x* maps the variable `flipper_length_mm` to the x-axis of the plot. The aesthetic *y* maps the variable `body_mass_g` to the y-axis of the plot.

- [x] `x`

  Correct
  The two aesthetic attributes in the code are *x* and *y*. The aesthetic *x* maps the variable `flipper_length_mm` to the x-axis of the plot. The aesthetic *y* maps the variable `body_mass_g` to the y-axis of the plot.

- [ ] `flipper_length_mm`
- [ ] `body_mass_g`

4. In ggplot2, which of the following aesthetic attributes can you use to map variables to points? Select all that apply. **1 / 1 point**

- [x] Size

Correct
In ggplot2, color, shape, and size are aesthetic attributes you can use to map variables to points. Color refers to the color of the points on your plot, shape to the shape of the points, and size to the size of the points.

- [x] Color

Correct
In ggplot2, color, shape, and size are aesthetic attributes you can use to map variables to points. Color refers to the color of the points on your plot, shape to the shape of the points, and size to the size of the points.

- [x] Shape

Correct
In ggplot2, color, shape, and size are aesthetic attributes you can use to map variables to points. Color refers to the color of the points on your plot, shape to the shape of the points, and size to the size of the points.

- [ ] Facet

5. The _____ aesthetic makes some points on a plot more transparent, or see-through, than others. **1 / 1 point**

- ( ) linetype
- ( ) color
- ( ) fill
- (•) alpha

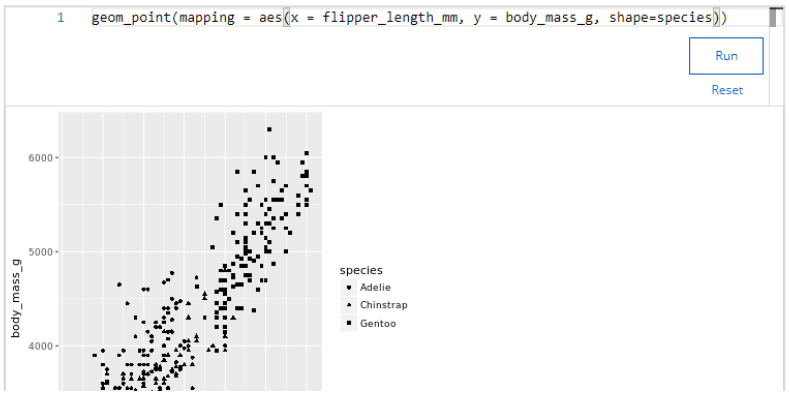
Correct
The alpha aesthetic makes some points on a plot more transparent, or see-through, than others.

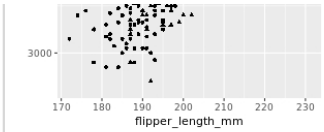
6. You are working with the penguins dataset. You create a scatterplot with the following code: **1 / 1 point**

```
ggplot(data = penguins) +
  geom_point(mapping = aes(x = flipper_length_mm, y = body_mass_g))
```

You want to highlight the different penguin species on your plot. Add a code chunk to the second line of code to map the aesthetic *shape* to the variable *species*.

NOTE: the three dots (...) indicate where to add the code chunk.





Which penguin species does your visualization display?

- ○ Adelie, Gentoo, Macaroni
- ○ Adelie, Chinstrap, Emperor
- ◉ Adelie, Chinstrap, Gentoo
- ○ Emperor, Chinstrap, Gentoo

Correct
You add the code chunk `shape = species` to the second line of code to map the aesthetic shape to the variable species. The correct code is `ggplot(data = penguins) + geom_point(mapping = aes(x = flipper_length_mm, y = body_mass_g, shape = species))`. Inside the parentheses of the aes() function, after the comma that follows y = body_mass_g, write the aesthetic (shape), then an equals sign, then the variable (species). The data points for each penguin species now appear in different shapes.

Your visualization displays the Adelie, Chinstrap, and Gentoo penguin species.

7. A data analyst creates a plot with the following code chunk: **1 / 1 point**

```
ggplot(data = penguins) +
  geom_jitter(mapping = aes(x = flipper_length_mm, y = body_mass_g))
```

What does the geom_jitter() function do to the points in the plot?

- ○ Adds a small amount of random shapes at each point in the plot
- ◉ Adds a small amount of random noise to each point in the plot
- ○ Decrease the size of each point in the plot
- ○ Adds random colors to each point in the plot

Correct
The geom_jitter() function creates a scatterplot and then adds a small amount of random noise to each point in the plot to make the points easier to find.

8. You are working with the diamonds dataset. You create a bar chart with the following code: **1 / 1 point**

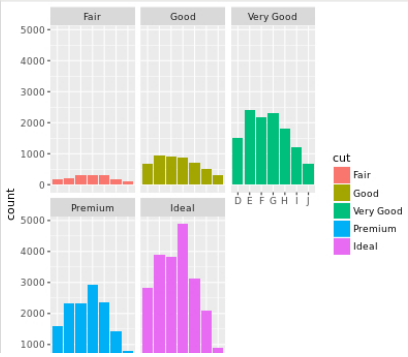
```
ggplot(data = diamonds) +

  geom_bar(mapping = aes(x = color, fill = cut)) +
```

You want to use the facet_wrap() function to display subsets of your data. Add the code chunk that lets you facet your plot based on the variable *cut*.

```
1  facet_wrap(~cut)
```

Run
Reset



How many subplots does your visualization show?

- (●) 5
- ( ) 4
- ( ) 3
- ( ) 6

Correct
You add the code chunk `facet_wrap(~cut)` to facet your plot based on the variable cut. The correct code is `ggplot(data = diamonds) + geom_bar(mapping = aes(x = color, fill = cut)) + facet_wrap(~cut)`. Inside the parentheses of the facet_wrap() function, write a tilde symbol (~) followed by the name of the variable you want to facet. The facet_wrap() function lets you display subsets of your data.

Your visualization shows 5 subplots.

9. A data analyst creates a scatterplot. The analyst wants to put a text label on the plot to call out specific data points. What function does the analyst use? **1 / 1 point**

- ( ) The ggplot() function
- ( ) The geom_smooth() function
- ( ) The facet_grid() function
- (●) The annotate() function

Correct
The analyst uses the annotate() function. The annotate() function can put a text label on a plot to call out specific data points.

10. You are working with the penguins dataset. You create a scatterplot with the following lines of code: **1 / 1 point**

```
ggplot(data = penguins) +

  geom_point(mapping = aes(x = flipper_length_mm, y = body_mass_g)) +
```

What code chunk do you add to the third line to save your plot as a png file with "penguins" as the file name?

- (●) `ggsave("penguins.png")`
- ( ) `ggsave("penguins")`
- ( ) `ggsave(penguins.png)`
- ( ) `ggsave("png.penguins")`

Correct
You add the code chunk `ggsave("penguins.png")` to save your plot as a png file with "penguins" as the file name. Inside the parentheses of the ggsave() function, type a quotation mark followed by the file name (penguins), then a period, then the type of file (png), then a closing quotation mark.