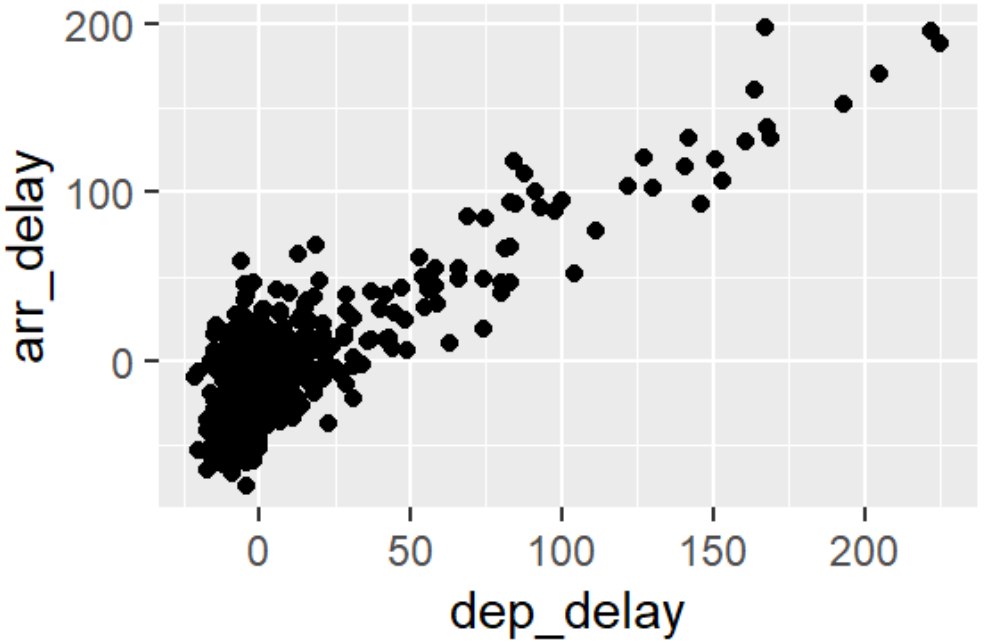
package

ggplot2

```
ggplot(data = flight_sub, aes(x = dep_delay, y = arr_delay)) +
     geom_point()
```



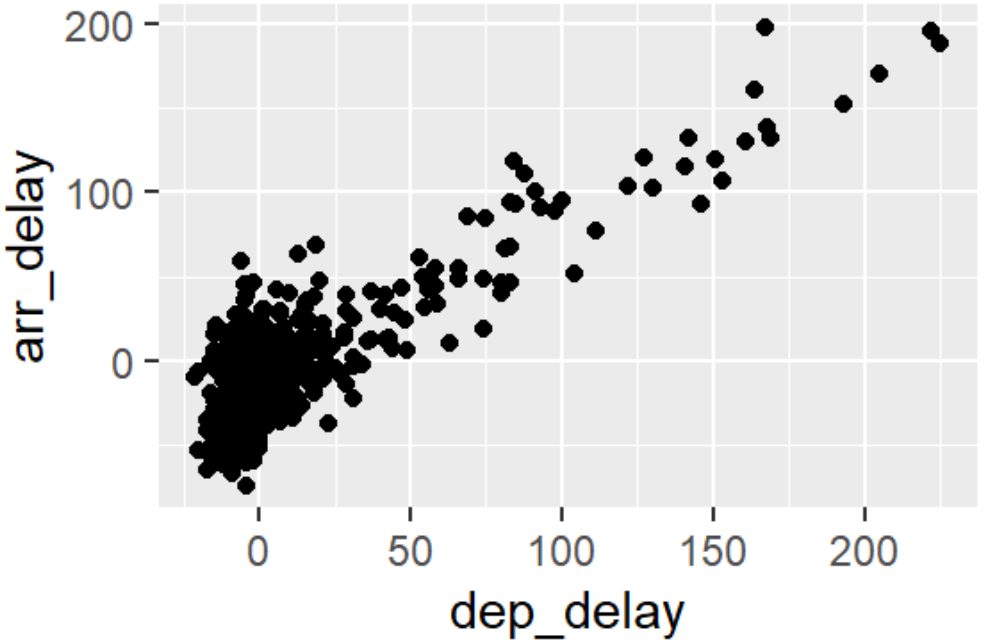
Function

Data frame

Which variables to plot

```
ggplot(data = flight_sub, aes(x = dep_delay, y = arr_delay)) +
    geom_point()
```

What kind of graph to make



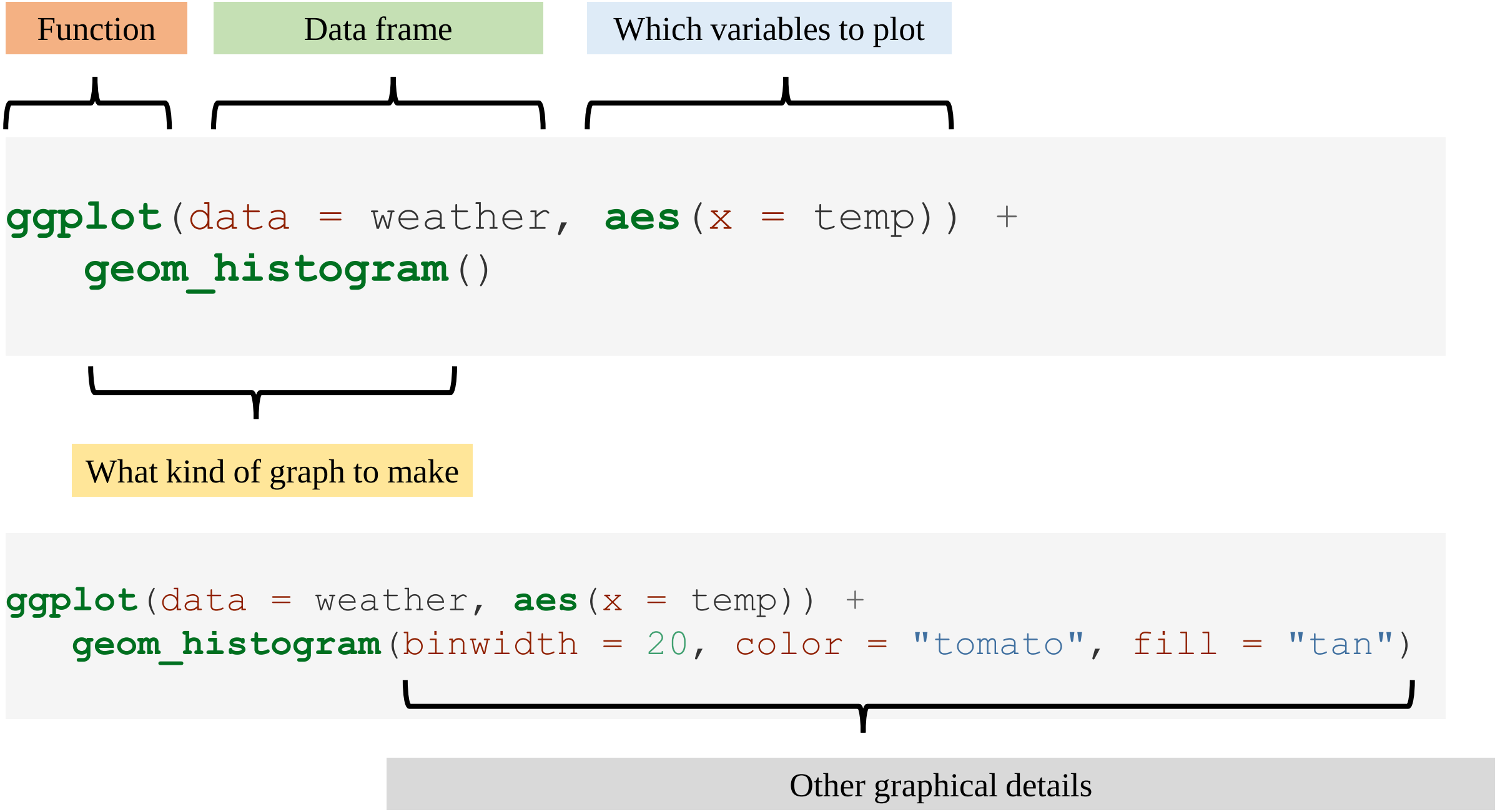

Function
Data frame
Which variables to plot
ggplot(data = weather, aes(x = temp)) +
geom_histogram()
What kind of graph to make
ggplot(data = weather, aes(x = temp)) +
geom_histogram(binwidth = 20, color = "tomato", fill = "tan")
Other graphical details

TABLE 3.5: Summary of 5NG

	Named graph	Shows	Geometric object		Notes
1	Scatterplot	Relationship between 2 numerical variables	`geom_point()`	★	
2	Linegraph	Relationship between 2 numerical variables	`geom_line()`		Used when there is a sequential order to x-variable e.g. time
3	Histogram	Distribution of 1 numerical variable	`geom_histogram()`	★	Facetted histogram shows distribution of 1 numerical variable split by 1 categorical variable
4	Boxplot	Distribution of 1 numerical variable split by 1 categorical variable	`geom_boxplot()`	★	To graph without splitting by a categorical variable add x = NULL
5	Barplot	Distribution of 1 categorical variable	`geom_bar()` when counts are not pre-counted	★	Stacked & dodged barplots show distribution of 2 categorical variables
			`geom_col()` when counts are pre-counted		