

# Diamond sizes Fall '24

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*#Note, Each gray box below is a code chunk. You need to insert a code chunk and put your R code in it. By setting echo = FALSE, this comment and any code will not show in my output document. If it were TRUE, the comment and code would appear.*

*#The include = FALSE function hides both the code and output in my output document. See what happens when you replace include=FALSE with echo=FALSE. In your final product, make sure this code chunk isn't displayed.*

*#You need to install these packages first to be able to use the functions within them (if you have not installed them before). You can install them from the Tools tab or write a new code chunk: install.packages("package\_name").*

```
library(ggplot2)
library(dplyr)
```

```
##
## Attaching package: 'dplyr'
```

```
## The following objects are masked from 'package:stats':
##
##   filter, lag
```

```
## The following objects are masked from 'package:base':
##
##   intersect, setdiff, setequal, union
```

```
diamonds<- as.data.frame(diamonds)
head(diamonds, 5)
```

|   | carat<dbl> | cut<ord> | color<ord> | clarity<ord> | depth<dbl> | table<dbl> | price<int> | x<dbl> | y<dbl> |  |
|---|------------|----------|------------|--------------|------------|------------|------------|--------|--------|--|
| 1 | 0.23       | Ideal    | E          | SI2          | 61.5       | 55         | 326        | 3.95   | 3.98   |  |
| 2 | 0.21       | Premium  | E          | SI1          | 59.8       | 61         | 326        | 3.89   | 3.84   |  |
| 3 | 0.23       | Good     | E          | VS1          | 56.9       | 65         | 327        | 4.05   | 4.07   |  |
| 4 | 0.29       | Premium  | I          | VS2          | 62.4       | 58         | 334        | 4.20   | 4.23   |  |
| 5 | 0.31       | Good     | J          | SI2          | 63.3       | 58         | 335        | 4.34   | 4.35   |  |

5 rows | 1-10 of 11 columns

*#Remember, the head command tell R to show us the top rows. Note where the first 5 rows show up when you knit. They are not in your output word document because you have include=FALSE in this code chunk heading.*

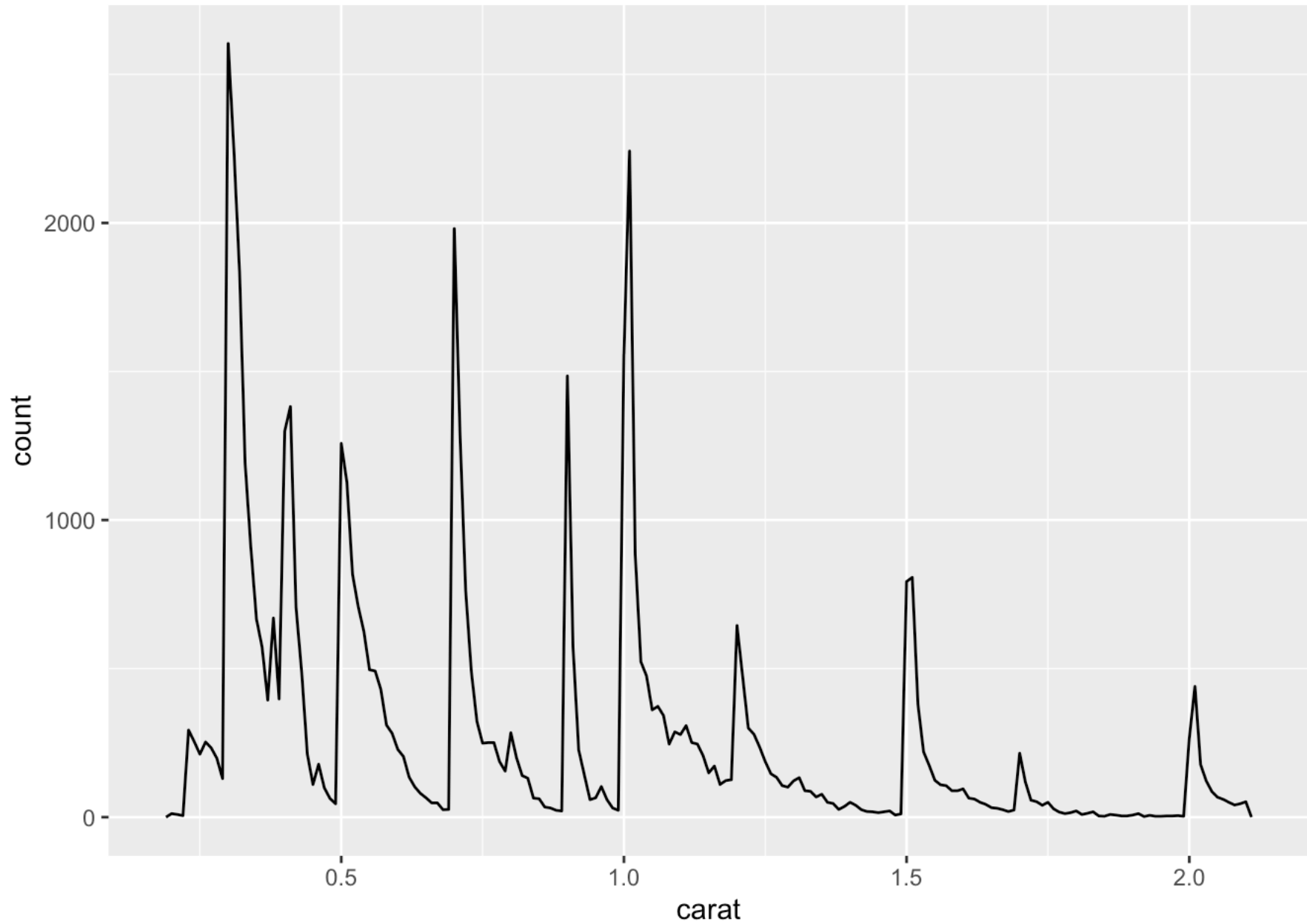
```
#this next line is creating a subset called 'small' of the diamonds data
small <- diamonds %>%
  filter(carat <= 2.1)
```

*#This next chunk is inline code. Inline code puts the text with the output of the code in my document.*

We have data about 53940 diamonds. Only 749 are larger than 2.2 carats. The distribution of the remainder is shown below:

*#This next code chunk will make a plot in our output doc*

```
small %>%
  ggplot(aes(carat)) +
  geom_freqpoly(binwidth = 0.01)
```



*#Once all of my code has been written, I click on the Knit button in the tool bar above to produce my document.*