WS #3 - Verbs

Wednesday, September 3, 2025

Math 154 - Jo Hardin

Name: _____

Names of people you worked with: _____

Introduce yourself. What did you do over the long weekend?

Task: Consider the `diamonds` dataset. Below are 2 tasks which can be accomplished using the following syntax. **Identify the verbs and arguments for accomplishing each task** (the dataset includes the columns `x`, `y`, and `z` which are length, width, and depth in mm).[1]

```
diamonds |>
  verb1( args1 ) |>
  verb2( args2 ) |>
  arrange( args3 ) |> head(1)
```

```
head(diamonds,3)
```

```
# A tibble: 3 x 10
  carat cut     color clarity depth table price     x     y     z
  <dbl> <ord>   <ord> <ord>   <dbl> <dbl> <int> <dbl> <dbl> <dbl>
1  0.23 Ideal   E     SI2      61.5    55   326  3.95  3.98  2.43
2  0.21 Premium E     SI1      59.8    61   326  3.89  3.84  2.31
3  0.23 Good    E     VS1      56.9    65   327  4.05  4.07  2.31
```

1. In the dataset, which color diamond is the largest on average (in terms of carats)?
2. In the dataset, what is the average price per carat of diamonds for the subset of diamonds that cost more than $10,000 total?

[1] **Data Computing**, Daniel Kaplan

Solution:

1. In the dataset, which color diamond is the largest on average (in terms of carats)?

```
diamonds |>
  group_by( color ) |>
  summarize( avesize = mean(carat) ) |>
  arrange( desc(avesize) ) |> head(1)
```

```
# A tibble: 1 x 2
  color avesize
  <ord>   <dbl>
1 J        1.16
```

2. In the dataset, what is the average price per carat of diamonds for the subset of diamonds that cost more than $10,000 total?

```
diamonds |>
  filter(price > 10000) |>
  summarise( mean.ppc = mean(price/carat) ) |>
  arrange( desc(mean.ppc) ) |> head(1)
```

```
# A tibble: 1 x 1
  mean.ppc
     <dbl>
1    8044.
```