Or alternatively using functions from the `dplyr` package:

```
> cond %>% group_by(Condition) %>% summarise(mean = mean(Ability),
sd = sd(Ability), count = n())
# A tibble: 3 x 4
  Condition             mean      sd count
  <fct>                <dbl>  <dbl> <int>
1 Water                 5.17 0.362     15
2 Single Espresso       6.99 0.419     15
3 Double Espresso       8.89 0.467     15
```

Now let's run the 1-way ANOVA using the *aov* function (part of base R). We are going to assign it to a variable we are calling *model.*

```
> model <- aov(Ability ~ Condition, data = cond)
> anova(model)
Analysis of Variance Table

Response: Ability
          Df  Sum Sq Mean Sq F value    Pr(>F)
Condition  2 103.872  51.936  297.05 < 2.2e-16 ***
Residuals 42   7.343   0.175
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

Here's the output we get – the F value is the ratio of systematic variance to unsystematic variation. It is the Mean SS of Condition divided by Mean Residual SS.

To get the Mean Square values we divide the Sum of Squares by the associated degrees of freedom (e.g., 7.343 / 42 = 0.175).