

Symbols and functions from today's session

Regression

```
#this function fits a linear regression with "y" as outcome,  
#"x" as predictor, and takes the information on x and y from  
#the data frame df
```

```
lm(formula = y ~ x,  
    data = df)
```

```
#This is the same as  
lm(df$y ~ df$x)
```

For example,

```
df <- read.csv("https://tinyurl.com/polite-data") #download data  
model <- lm(formula = pitch ~ 1 + context, #fit model  
            data = df)
```

Fits a linear regression model with `pitch` as the outcome and `context` as a predictor.

In formulae:

$$\text{pitch}_i \sim \text{Normal}(\mu_i, \sigma)$$

$$\mu_i = \beta_0 + \beta_1 \text{context}$$