A good model will have large MS_M and a small MS_R

 In other words, the improvement of the model compared to the mean will be good.

 The difference between the model and our observed data will be small.

$$F = MS_M MS_R$$

- If MS_M is large and MS_R is small, then F will be large.
- We can determine whether our F value is significant by looking up the critical values on the F table.

 For SS_M the degrees of freedom = number of variables in model (in our case 2).

• For SS_R the degrees of freedom = number of observations – number of parameters being estimated, including the constant (in our case 5-2 = 3)