

The function `rss` below is meant to mirror the formula for RSS for a simple linear regression model:

$$\text{RSS}(b_0, b_1) = \sum_{i=1}^n (y_i - (b_0 + b_1 x_i))^2$$

`coef[1]` and `coef[2]` represent b_0 and b_1 , respectively and refer to the first two elements of a vector called `coef` which is the argument of the function.

- Write in your final values in each case in the spaces given. Comment on whether they match the results you got from your linear model object in the problem set.

| Starting b_0 | Starting b_1 | Final b_0 | Final b_1 |
|------------------------------------|--------------------------------|-------------|-------------|
| 0 | 0 | | |
| Eyeballed <i>intercept</i> : _____ | Eyeballed <i>slope</i> : _____ | | |

- $$\text{RSABS}(b_0, b_1) = \sum_{i=1}^n |y_i - (b_0 + b_1 x_i)|$$

3. Use `rsabs` to estimate the parameters b_0 and b_1 using `optim()` as you did before for `rss`. Comment on whether your results matches the estimates that come out of `lm()` and from the `rss` function.

| Starting b_0 | Starting b_1 | Final b_0 | Final b_1 |
|------------------------------------|--------------------------------|-------------|-------------|
| 0 | 0 | | |
| Eyeballed <i>intercept</i> : _____ | Eyeballed <i>slope</i> : _____ | | |