

2. Linear Models

Exercise Solution

Exercise 2.1

Analyze in what situations the bias term b is not needed in:

$$f(x) = \omega^\top \mathbf{x} + b.$$

In our notation the bias represents the concept of an intercept. Hence, the question is in which situations no intercept is needed. Those are the cases when you are sure the intercept would be zero because you will be forcing your regression to take the value zero when all your input parameters take the value zero. In other words the regression at the origin is forced to be zero.