

# Introducing multiple regression

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## In matrix notation

To be more compact:

$$Y = \beta X + \varepsilon$$

Where  $Y$  is the vector of predictors,  $\beta$  is the vector of coefficients (including the intercept),  $X$  is the matrix of all predictors, and  $\varepsilon$  is the error term.

## Exercises

- Fit a multiple regression of Petal.Width using `iris`
- Fit Pager's main model using the `crimrec` data
- Interpret multiple regression
- Visualize inference using `predict()`