

LaTeX Practice 1

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The purpose of a straight-line model in simple linear regression is to

- estimate the linear relationship between two variables (X and Y) using a linear parametric function,
- use that relationship to predict future values of the dependent variable (Y), and/or
- quantitatively explain the relationship between the dependent variable (Y) and an independent variable (X).

The simple linear regression model is $Y = \beta_0 + \beta_1 X + \epsilon$, where random error ϵ has mean 0 and variance σ^2 .