Feature Scaling and Polynomial Regression

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Feature Normalization / Scaling and Selecting value of Alpha

- Make sure features are on similar scale. It helps gradient descent to converge more quickly.
- You can use StandardScaler or MinMaxScaler to normalize the features.

- For alpha you can try values at log scale. For example,

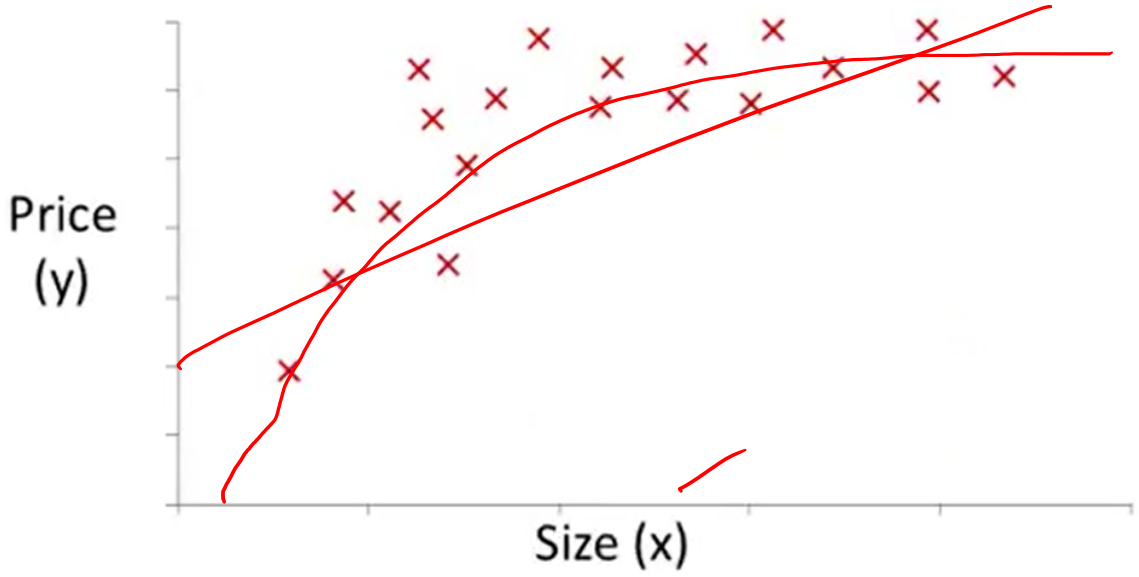
0.0001, 0.001, 0.01, 0.1, 1, etc.

Feature Engineering

$$h_\theta(x) = \theta_0 + \theta_1 \times frontage + \theta_2 \times depth$$

$$x_3 = frontage \times depth$$

Polynomial Regression



$$\theta_0 + \theta_1 x + \theta_2 x^2$$

$$\theta_0 + \theta_1 x + \theta_2 x^2 + \theta_3 x^3$$

$$h_\theta(x) = \theta_0 + \theta_1 x + \theta_2 x^2 + \theta_3 x^3$$

$$x_1 = size$$

$$x_2 = size^2$$

$$x_3 = size^3$$

$$h_\theta(x) = \theta_0 + \theta_1 x_1 + \theta_2 x_2 + \theta_3 x_3$$