function plotFit(min\_x, max\_x, mu, sigma, theta, p)

%PLOTFIT Plots a learned polynomial regression fit over an existing figure.

%Also works with linear regression.

% PLOTFIT(min\_x, max\_x, mu, sigma, theta, p) plots the learned polynomial

% fit with power p and feature normalization (mu, sigma).

% Hold on to the current figure

hold on;

% We plot a range slightly bigger than the min and max values to get

% an idea of how the fit will vary outside the range of the data points

x = (min\_x - 15: 0.05 : max\_x + 25)';

% Map the X values

X\_poly = polyFeatures(x, p);

X\_poly = bsxfun(@minus, X\_poly, mu);

X\_poly = bsxfun(@rdivide, X\_poly, sigma);

% Add ones

X\_poly = [ones(size(x, 1), 1) X\_poly];

% Plot

plot(x, X\_poly \* theta, '--', 'LineWidth', 2)

% Hold off to the current figure

hold off

end