```matlab
 clear all;
x = linspace(-5, 5, 1000);
y1 = x.^2;
y2 = x.^3;
y3 = exp(x);
y4 = sin(x) .* cos(x);

figure;
plot(x, y1, 'LineWidth', 3, 'DisplayName', 'y = x^2');
hold on;
plot(x, y2, 'LineWidth', 3, 'DisplayName', 'y = x^3');
plot(x, y3, 'LineWidth', 3, 'DisplayName', 'y = e^x');
plot(x, y4, 'LineWidth', 3, 'DisplayName', 'y = sin(x) * cos(x)');

xlabel('x');
ylabel('y');
legend('show');
title('Plot of Functions');
grid on;
hold off;
```
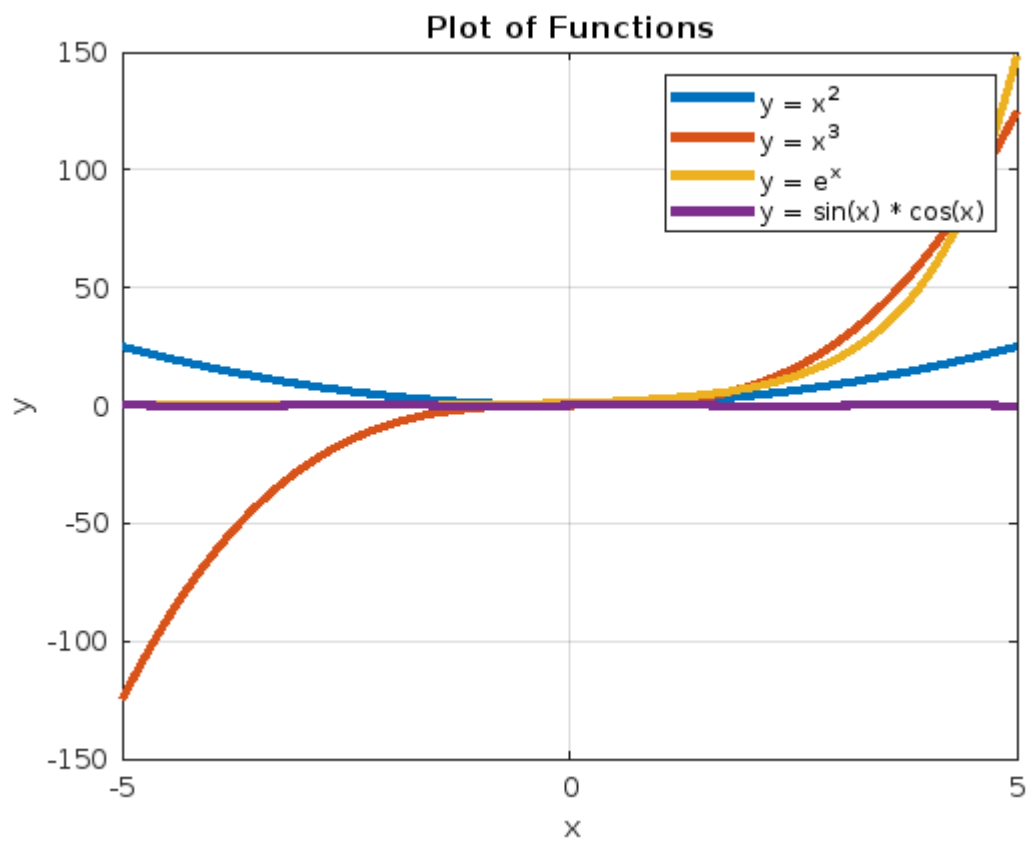
Plot of Functions

Legend:
- $y = x^2$
- $y = x^3$
- $y = e^x$
- $y = \sin(x) * \cos(x)$

Published with MATLAB® R2023b