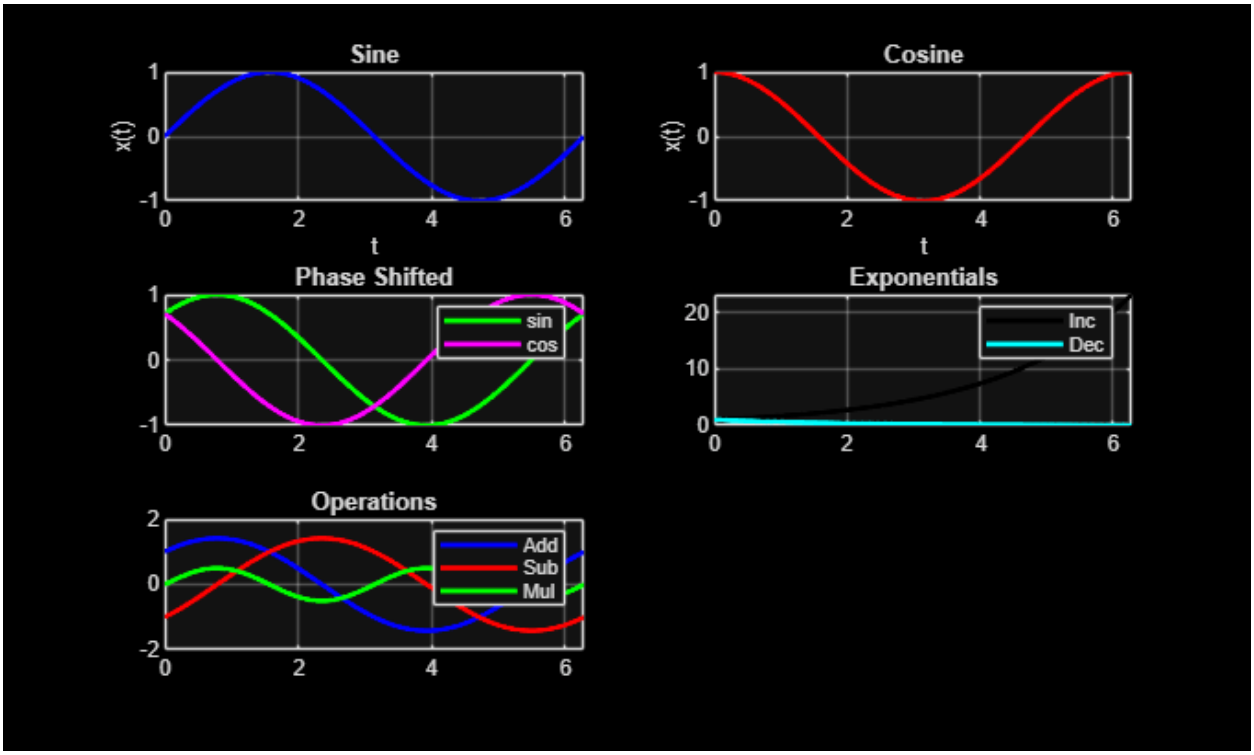
```
% AIM: Generate various waveforms using MATLAB functions
clc;
clear;
close all;

t = 0:0.01:2*pi;   % time vector

subplot(3,2,1);
plot(t, sin(t), 'b', 'LineWidth', 2);
title('Sine');
xlabel('t');
ylabel('x(t)');
grid on;

subplot(3,2,2);
plot(t, cos(t), 'r', 'LineWidth', 2);
title('Cosine');
xlabel('t');
ylabel('x(t)');
grid on;

subplot(3,2,3);
plot(t, sin(t + pi/4), 'g', 'LineWidth', 2); hold on;
plot(t, cos(t + pi/4), 'm', 'LineWidth', 2);
title('Phase Shifted');
legend('sin', 'cos');
grid on;

subplot(3,2,4);
plot(t, exp(0.5*t), 'k', 'LineWidth', 2); hold on;
plot(t, exp(-0.5*t), 'c', 'LineWidth', 2);
title('Exponentials');
legend('Inc', 'Dec');
grid on;

x1 = sin(t);
x2 = cos(t);
subplot(3,2,5);
plot(t, x1 + x2, 'b', 'LineWidth', 2); hold on;
plot(t, x1 - x2, 'r', 'LineWidth', 2);
plot(t, x1 .* x2, 'g', 'LineWidth', 2);
title('Operations');
legend('Add', 'Sub', 'Mul');
grid on;
```



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