

Plot the value of the sine and cosine function from 0 to  $2\pi$ . Use subplot to plot sine and cosine function separately.

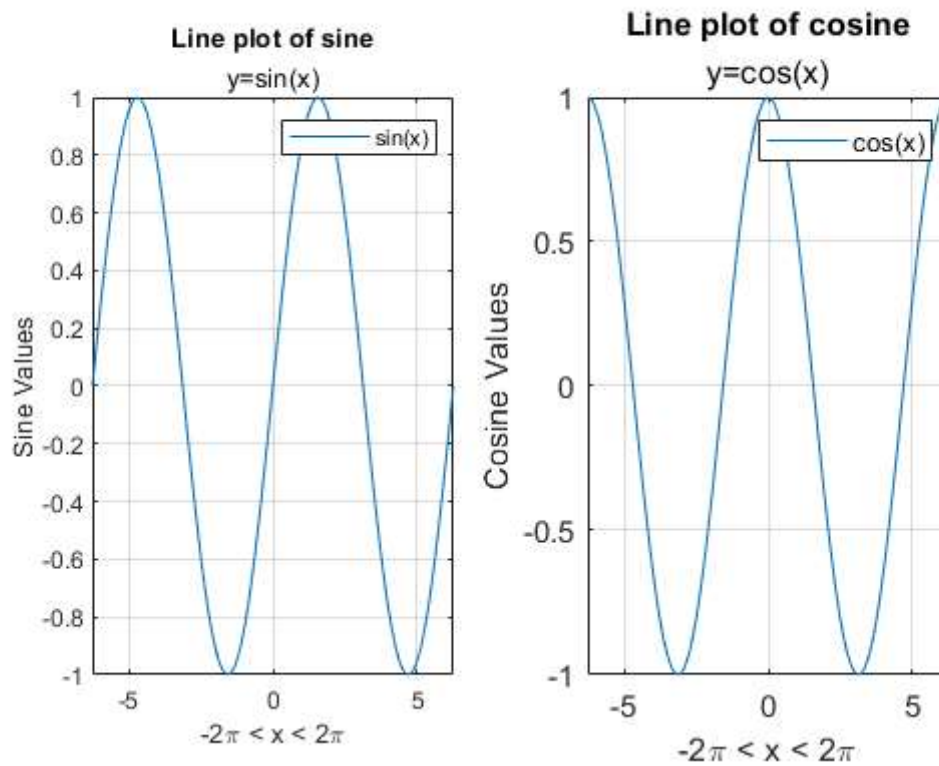
```
figure;
x = linspace(-2*pi,2*pi,100);
y1 = sin(x);
y2 = cos(x);

subplot(1,2,1);
plot(x,y1);
xlabel('-2\pi < x < 2\pi');
ylabel('Sine Values');
title('Line plot of sine');
subtitle('y=sin(x)');
grid on;
legend('sin(x)');

subplot(1,2,2);
plot(x,y2);
xlabel('-2\pi < x < 2\pi');
ylabel('Cosine Values') ;
title('Line plot of cosine');
subtitle('y=cos(x)');
grid on;
legend('cos(x)');
ax = gca;
ax.FontSize = 11;

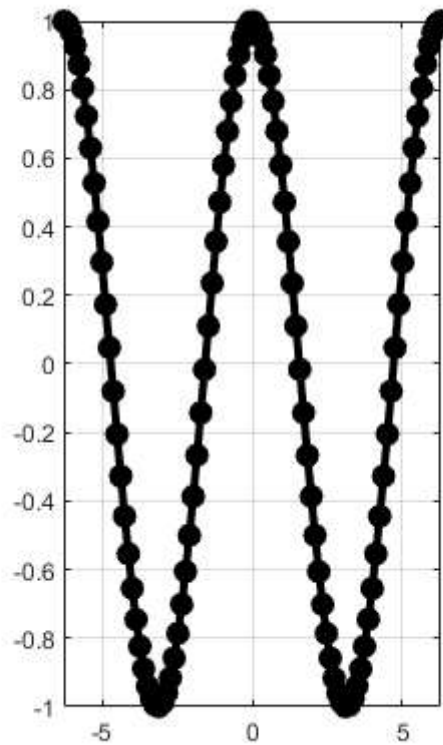
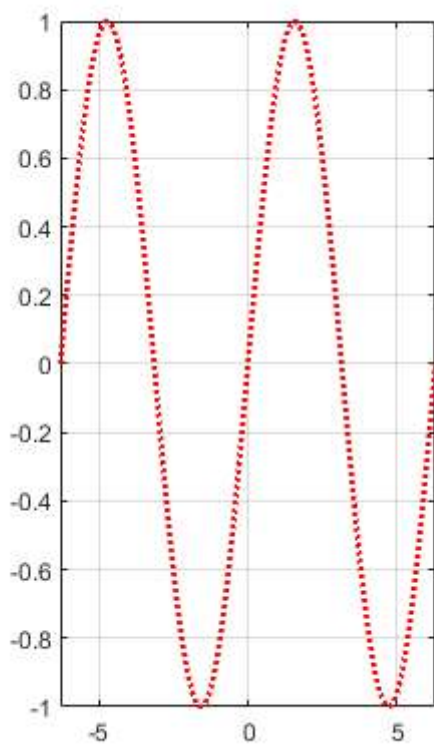
sgtitle('Subplot of sine and cosine -2\pi < x < 2\pi');
```

## Subplot of sine and cosine $-2\pi < x < 2\pi$



Formatting of plots - Line style, color, markers

```
figure;  
x = linspace(-2*pi,2*pi,100);  
y1 = sin(x);  
y2 = cos(x);  
  
subplot(1,2,1);  
plot(x,y1,'r:', 'Linewidth',2);  
grid on;  
  
subplot(1,2,2);  
plot(x,y2,'k-o', 'Linewidth',3);  
grid on;
```



Adding text and constant lines

```
figure;
x = linspace(-2*pi,2*pi,100);
y1 = sin(x);
y2 = cos(x);

subplot(1,2,1);
plot(x,y1);
grid on;
text(pi/2,0.3,'Value');
xline(pi/2,'-','\pi/2');
title('Sine');

subplot(1,2,2);
plot(x,y2);
grid on;
text(pi,0.6,'Value');
yline(0.3,'-','0.3');
title('Cosine');

% SAVING FILES in PNG, JPG and PDF formats
saveas(gcf,'exercise03.png');
saveas(gcf,'exercise03.jpg');
saveas(gcf,'exercise03.pdf');
```

