Practical Ques. P9

#Generate different subplots from a given plot and color plot data.

```
import numpy as np
import matplotlib.pyplot as plt

# Create sample data
x = np.linspace(0, 10, 100)
y1 = np.sin(x)
y2 = np.cos(x)
y3 = np.tan(x)

# Create subplots
fig, axs = plt.subplots(3, 1, figsize=(8, 12))

# Plot data in each subplot with different colors
axs[0].plot(x, y1, color='blue')
axs[0].set_title('Sine Function')
axs[0].set_xlabel('X')
axs[0].set_ylabel('Y')

axs[1].plot(x, y2, color='red')
axs[1].set_title('Cosine Function')
axs[1].set_xlabel('X')
axs[1].set_ylabel('Y')

axs[2].plot(x, y3, color='green')
```

```
axs[2].set_title('Tangent Function')
axs[2].set_xlabel('X')
axs[2].set_ylabel('Y')

# Adjust layout
plt.tight_layout()

# Show plot
plt.show()
```

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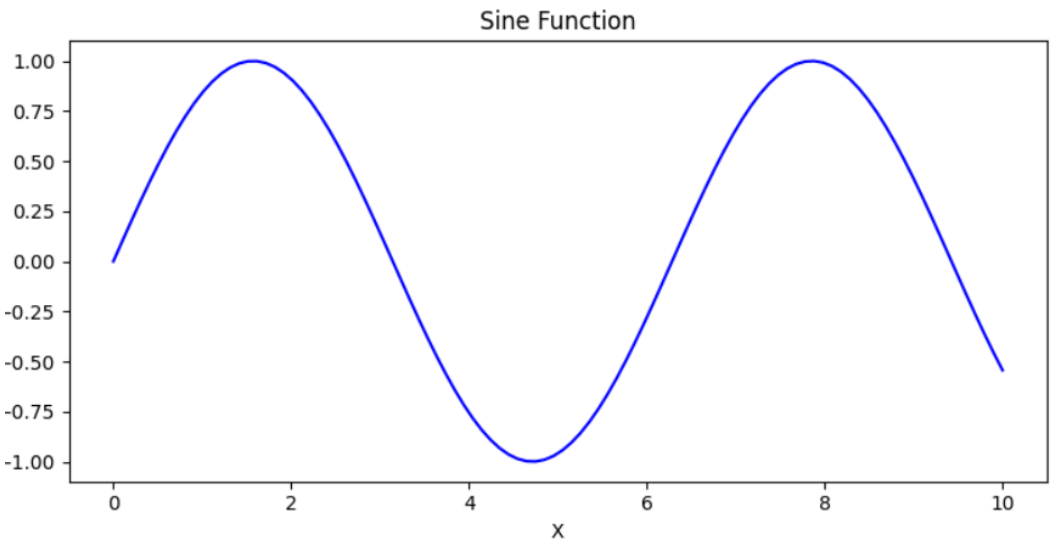
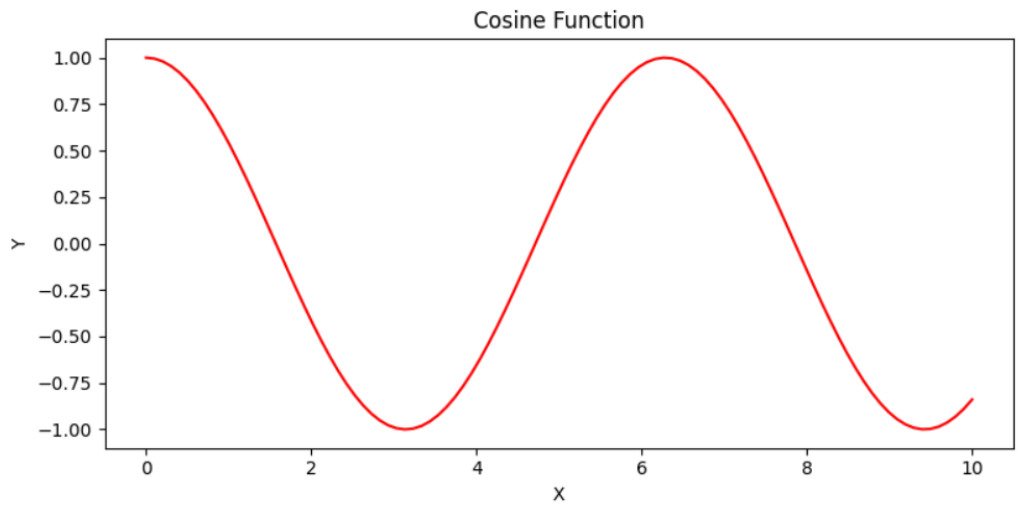
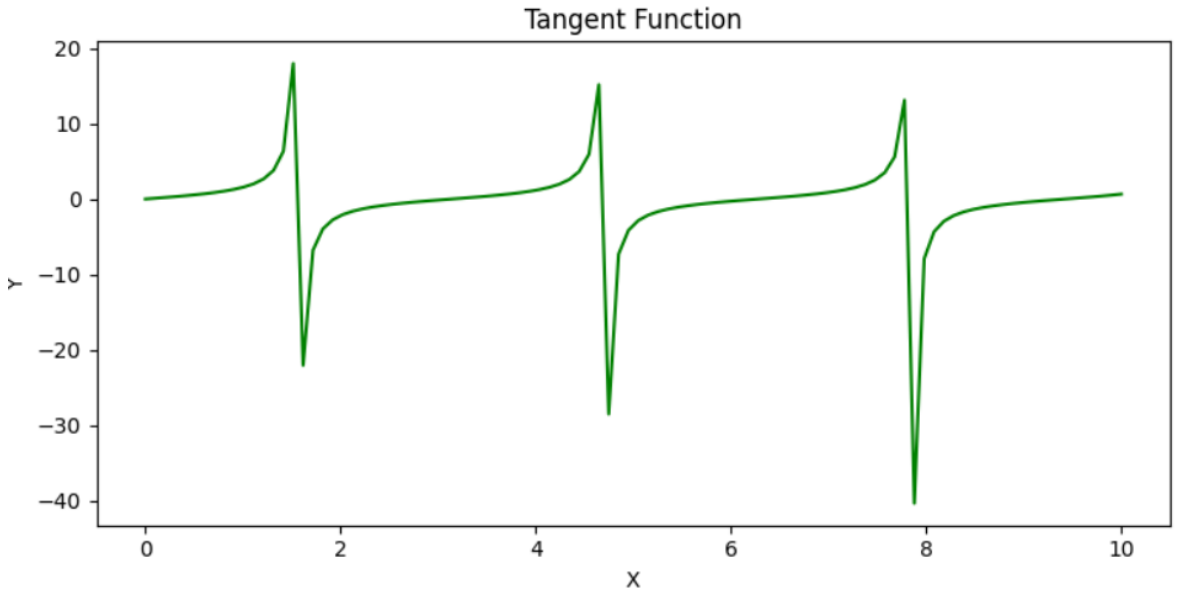



Cosine Function
1.00
0.75
0.50
0.25
0.00
−0.25
−0.50
−0.75
−1.00
Y
0
2
4
6
8
10
X


Tangent Function
20
10
0
−10
−20
−30
−40
Y
0
2
4
6
8
10
X