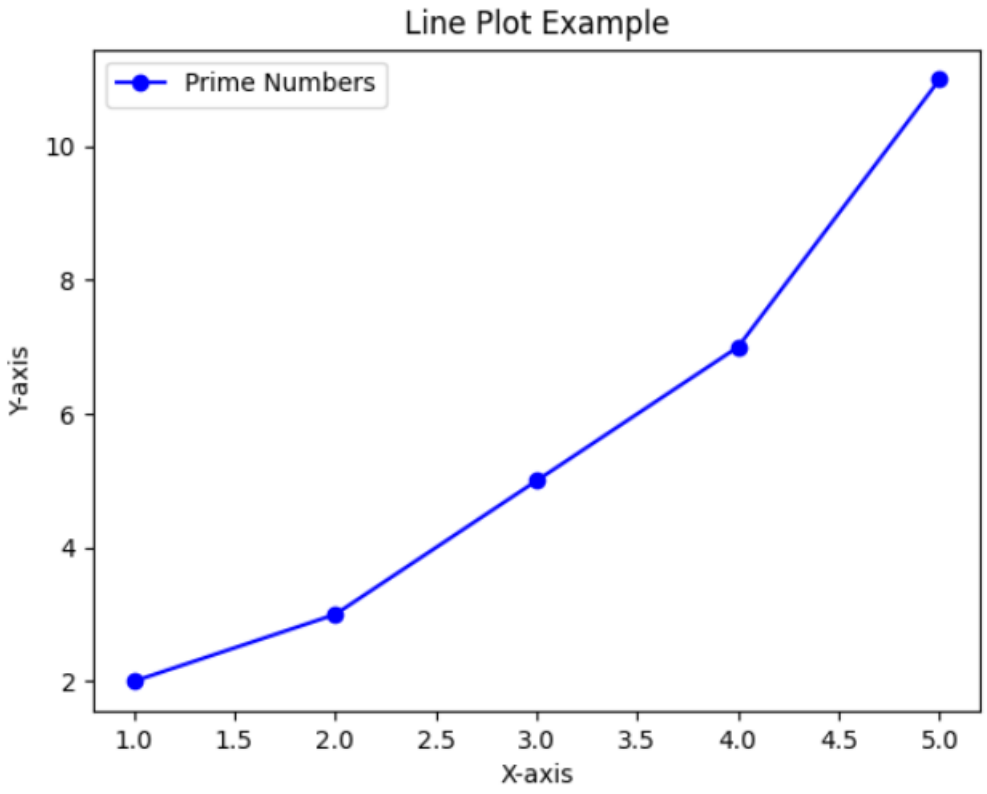
1、折线图

```
# 数据
x = [1, 2, 3, 4, 5]
y = [2, 3, 5, 7, 11]

# 创建图表
plt.figure()
plt.plot(x, y, marker='o', linestyle='-', color='b', label='Prime Numbers')

# 添加标题和标签
plt.title('Line Plot Example')
plt.xlabel('X-axis')
plt.ylabel('Y-axis')
plt.legend()

# 显示图表
plt.show()
```



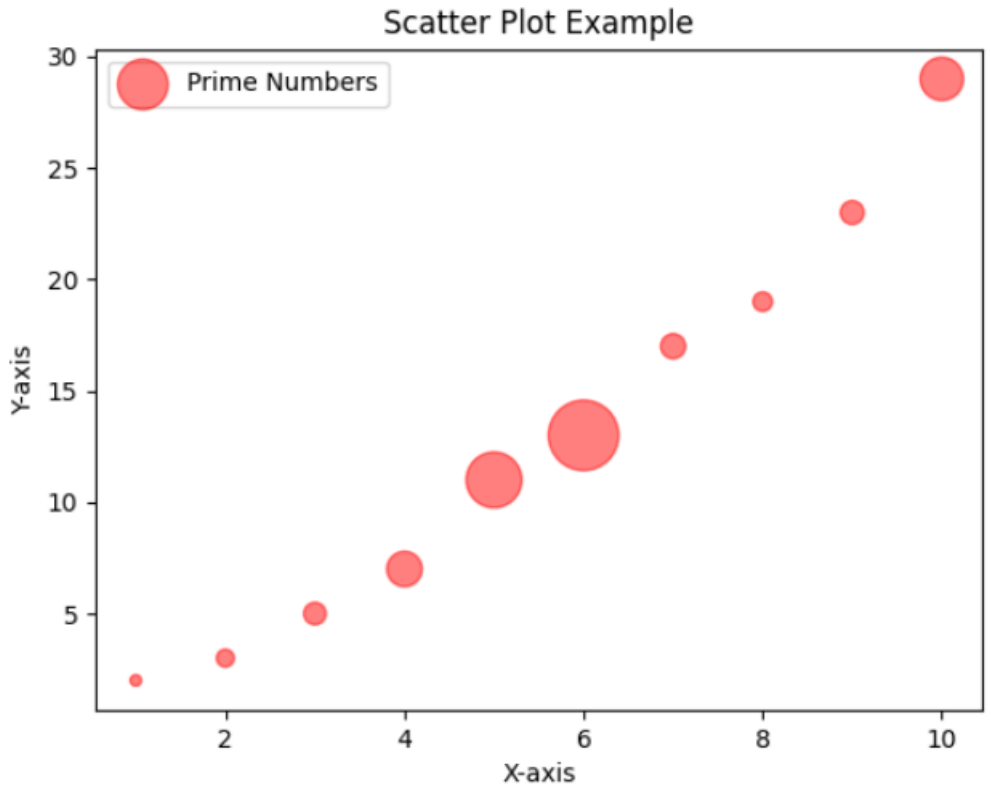
2、散点图

```
# 数据
x = [1, 2, 3, 4, 5, 6, 7, 8, 9, 10]
y = [2, 3, 5, 7, 11, 13, 17, 19, 23, 29]
sizes = [20, 50, 80, 200, 500, 800, 100, 60, 90, 300]

# 创建图表
plt.figure()
plt.scatter(x, y, s=sizes, c='r', alpha=0.5, label='Prime Numbers')

# 添加标题和标签
plt.title('Scatter Plot Example')
plt.xlabel('X-axis')
plt.ylabel('Y-axis')
plt.legend()

# 显示图表
plt.show()
```



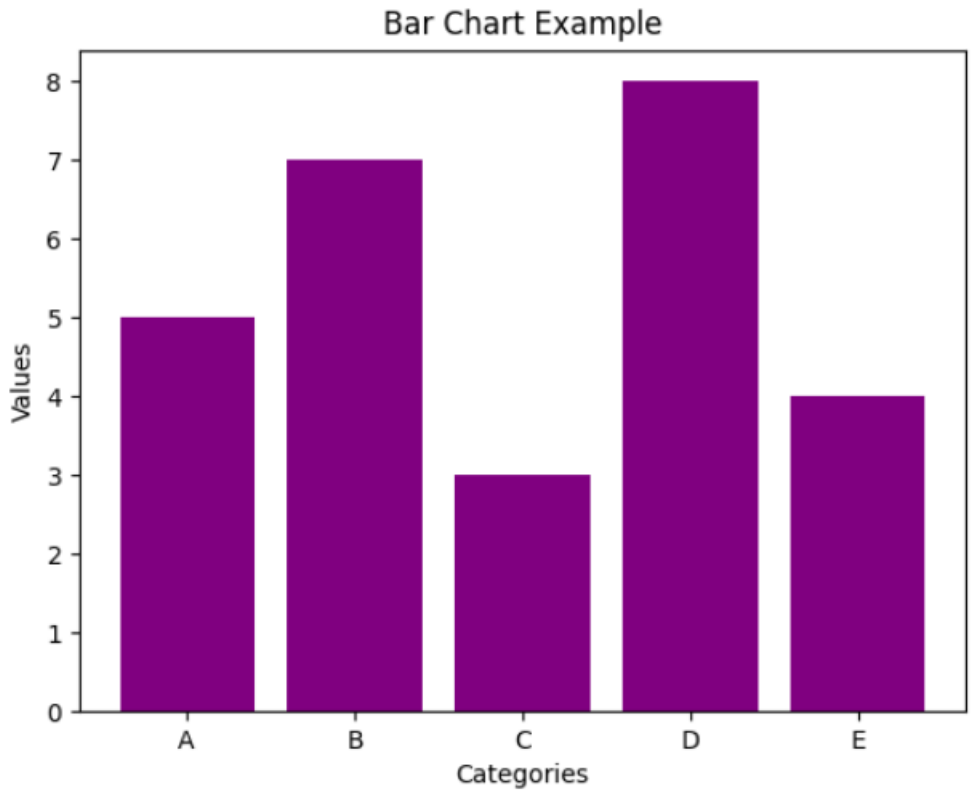
3、柱状图

```
# 数据
categories = ['A', 'B', 'C', 'D', 'E']
values = [5, 7, 3, 8, 4]

# 创建图表
plt.figure()
plt.bar(categories, values, color='purple')

# 添加标题和标签
plt.title('Bar Chart Example')
plt.xlabel('Categories')
plt.ylabel('Values')

# 显示图表
plt.show()
```



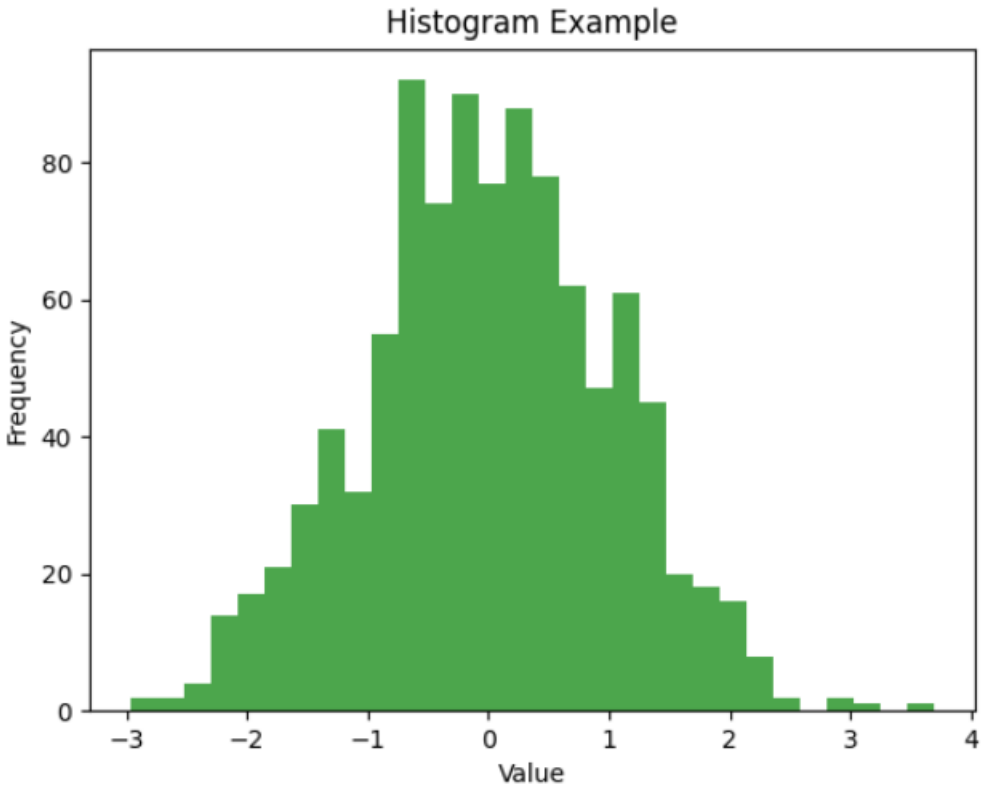
4、直方图

```
# 生成数据
data = np.random.randn(1000)

# 创建图表
plt.figure()
plt.hist(data, bins=30, color='g', alpha=0.7)

# 添加标题和标签
plt.title('Histogram Example')
plt.xlabel('Value')
plt.ylabel('Frequency')

# 显示图表
plt.show()
```



5、饼图

```
# 数据
labels = ['A', 'B', 'C', 'D']
sizes = [15, 30, 45, 10]
colors = ['gold', 'yellowgreen', 'lightcoral', 'lightskyblue']
explode = (0.1, 0, 0, 0)  # 突出显示第一块

# 创建图表
plt.figure()
plt.pie(sizes, explode=explode, labels=labels, colors=colors, autopct='%1.1f%%', shadow=True, startangle=140)

# 添加标题
plt.title('Pie Chart Example')

# 显示图表
plt.show()
```