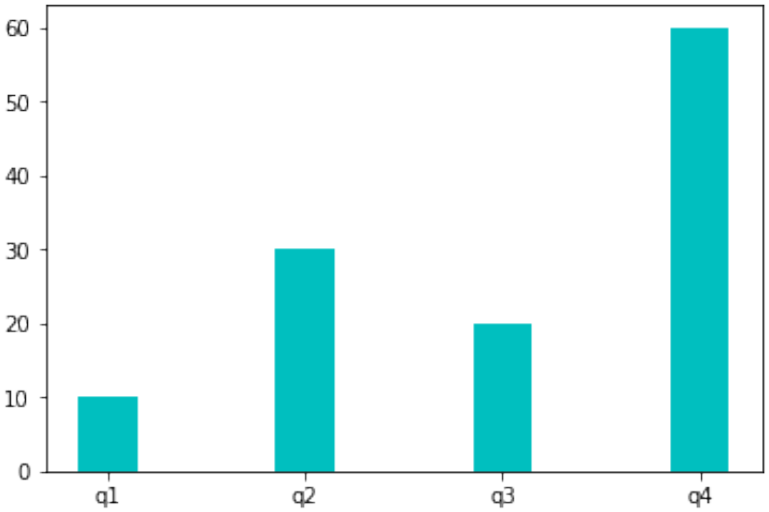
matplotlib绘制柱状图和饼状图

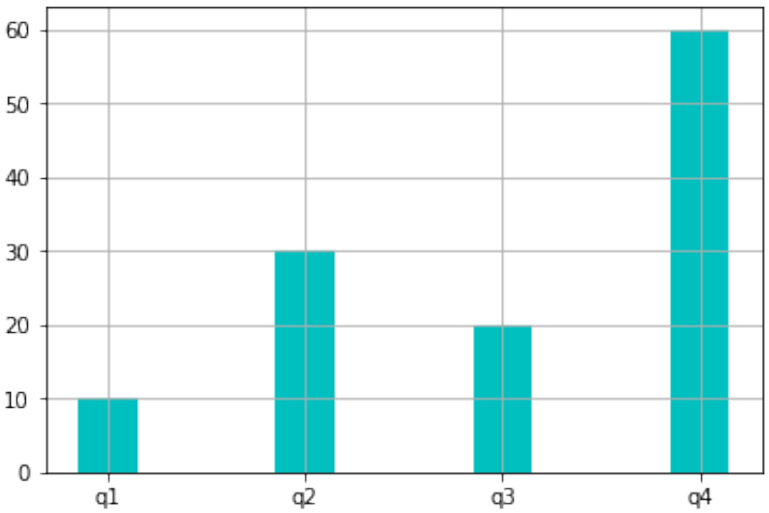
In [1]:
```
import matplotlib.pyplot as plt
```

柱状图--bar

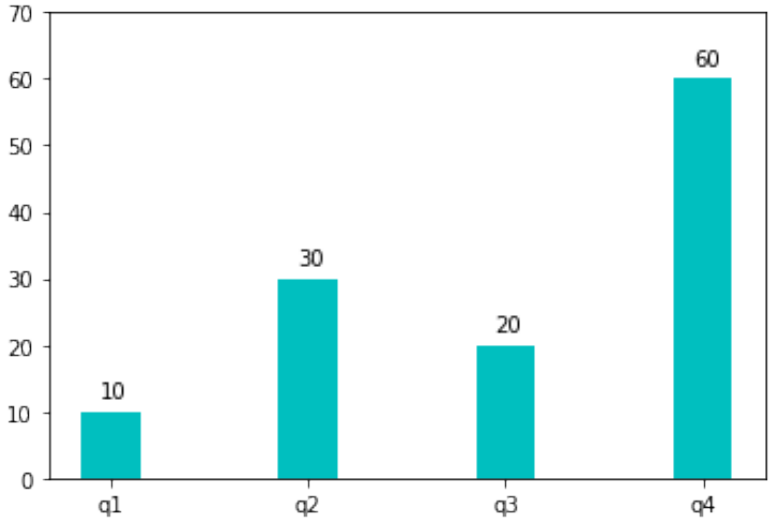
In [2]:
```
x = ['q1', 'q2', 'q3', 'q4']
y = [10, 30, 20, 60]
plt.bar(x, y, color='c', width=0.3)
plt.show()
```



In [3]:
```
x = ['q1', 'q2', 'q3', 'q4']
y = [10, 30, 20, 60]
plt.bar(x, y, color='c', width=0.3)
plt.grid(True)
plt.show()
```



In [4]:
```
x = ['q1', 'q2', 'q3', 'q4']
y = [10, 30, 20, 60]
rect = plt.bar(x, y, color='c', width=0.3)
for ind, item in enumerate(rect):
    _x = item.get_x() + 0.1
    _y = item.get_height() + 2
    plt.text(_x, _y, y[ind])
plt.ylim(0, 70)     # y轴取值范围为0到70
plt.show()
```



饼状图--pie

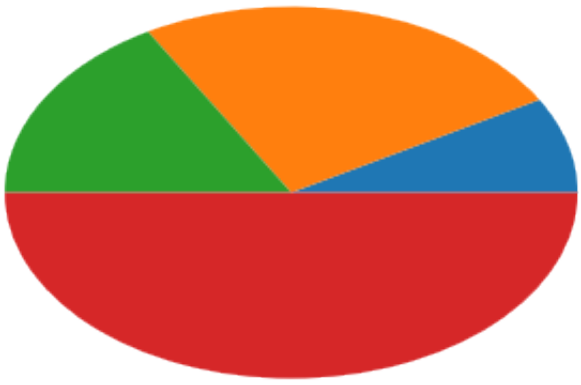
In [5]:
```
x
```

Out[5]:
```
['q1', 'q2', 'q3', 'q4']
```

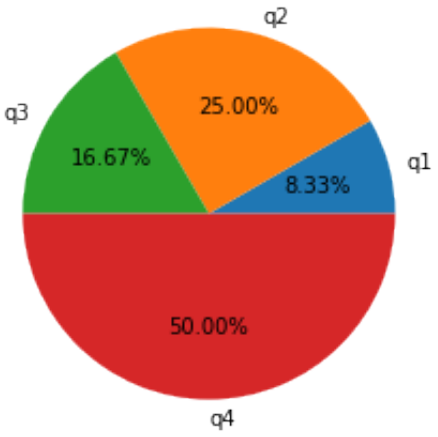
In [6]:
```
y
```

Out[6]:
```
[10, 30, 20, 60]
```

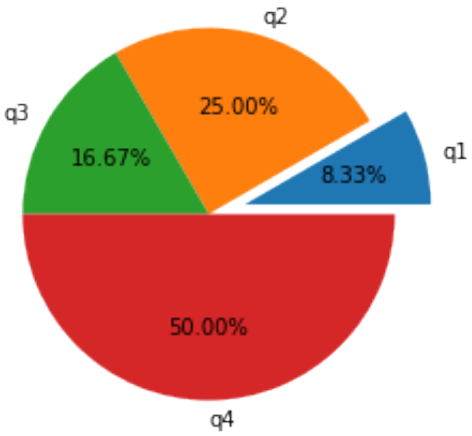
In [7]:
```
plt.pie(y)          # 画饼状图只需要y值
plt.show()
```



In [8]:
```
plt.axes(aspect=1)          # 设置为正圆
plt.pie(y, labels=x, autopct='%.2f%%')
plt.show()
```



In [9]:
```
plt.axes(aspect=1)          # 设置为正圆
plt.pie(y, labels=x, autopct='%.2f%%', explode=[0.2, 0, 0, 0])
# explode表示凸出
plt.show()
```



In [10]:
```
plt.axes(aspect=1)          # 设置为正圆
plt.pie(y, labels=x, autopct='%.2f%%', explode=[0.2, 0, 0.1, 0], sh
adow=True)          # explode表示凸出
plt.show()
```