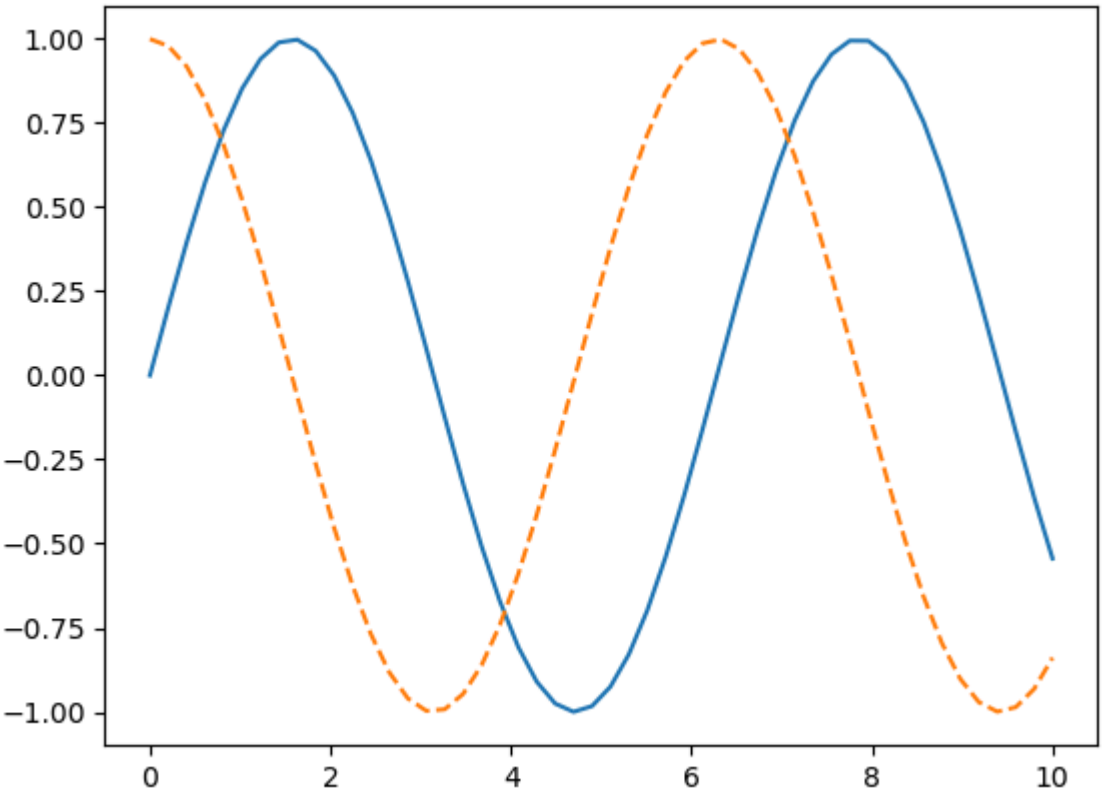
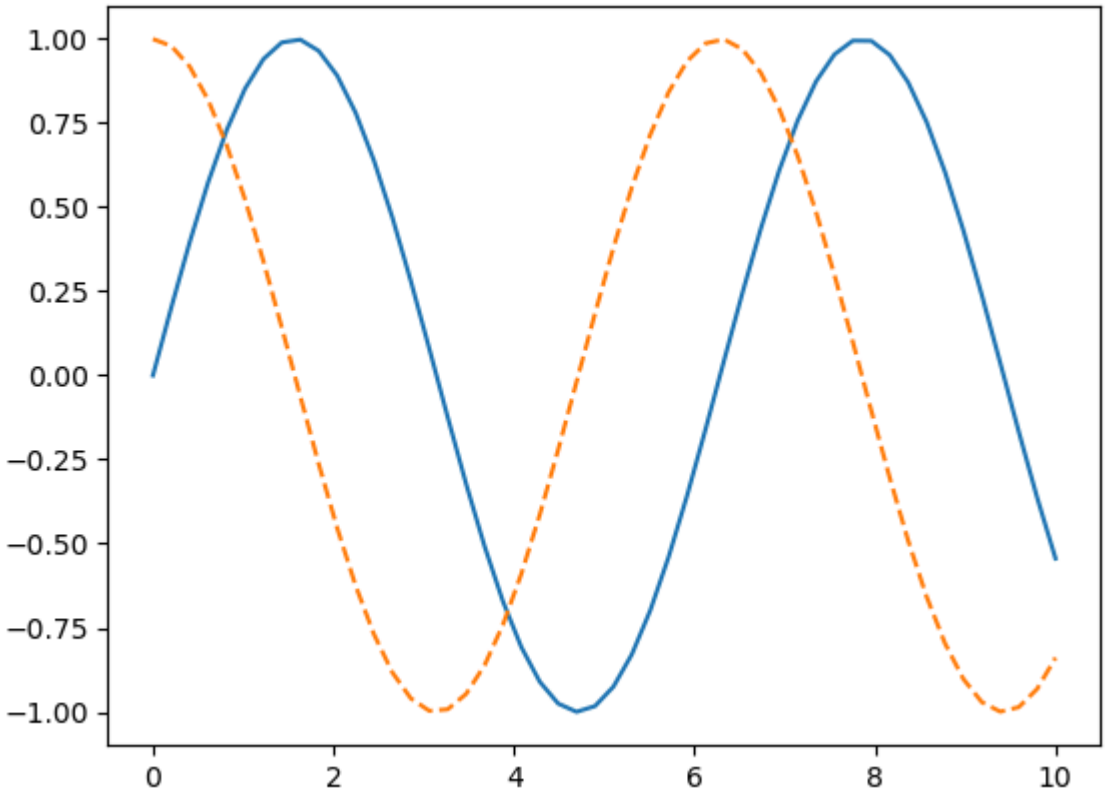
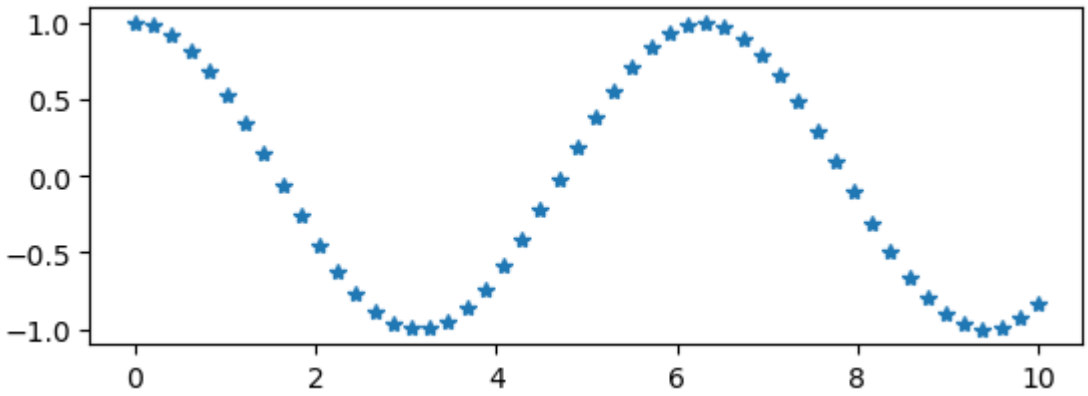
In [1]:
```
import numpy as np
import pandas as pd
import matplotlib.pyplot as plt
%matplotlib inline
x1=np.linspace(0, 10, 50)
plt.plot(x1, np.sin(x1),'-')
plt.plot(x1, np.cos(x1),'--')
plt.show()
```



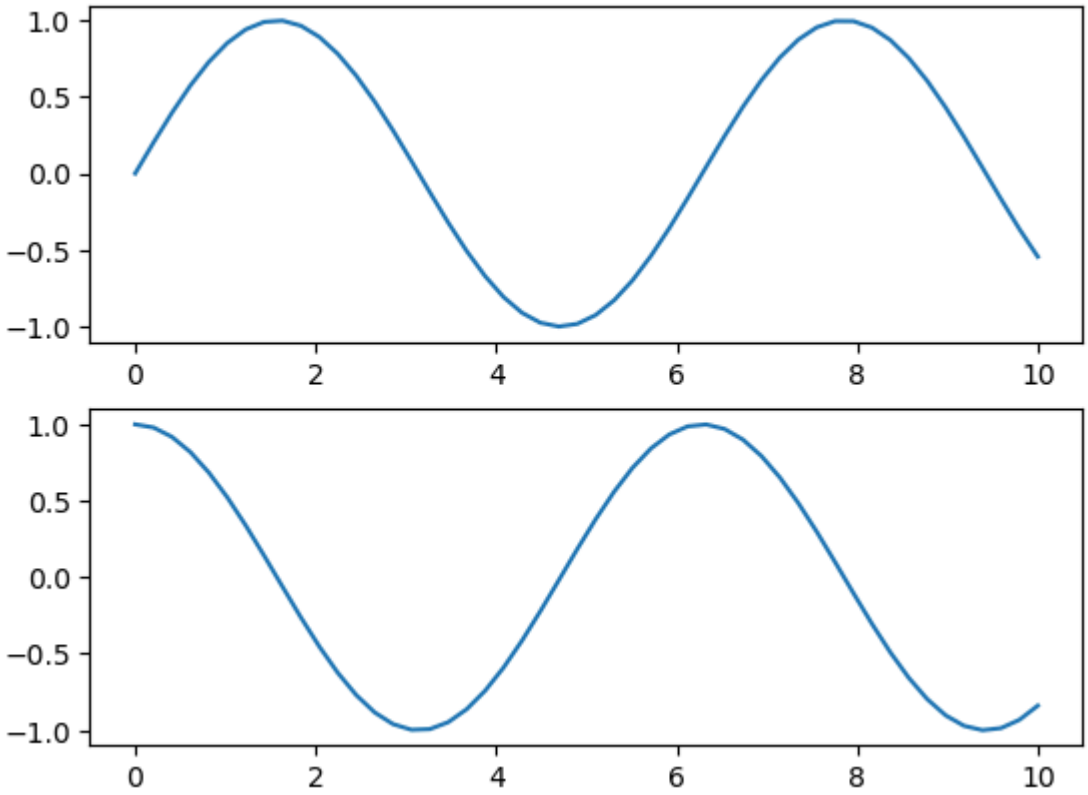
In [2]:
```
%matplotlib inline
x1 = np.linspace(0, 10, 50)

# create a plot figure
#fig = plt.figure()

plt.plot(x1, np.sin(x1), '-')
plt.plot(x1, np.cos(x1), '--')
#plt.plot(x1, np.tan(x1), '--')
plt.show()
```



In [3]:
```
# create the first of two panels and set current axis
plt.subplot(2, 1, 1)   # (rows, columns, panel number)
plt.plot(x1, np.cos(x1), '*')
plt.show()
```



In [4]:
```
plt.figure()


# create the first of two panels and set current axis
plt.subplot(2, 1, 1)   # (rows, columns, panel number)
plt.plot(x1, np.sin(x1))

# create the second of two panels and set current axis
plt.subplot(2, 1, 2)   # (rows, columns, panel number)
plt.plot(x1, np.cos(x1));
plt.show()
```

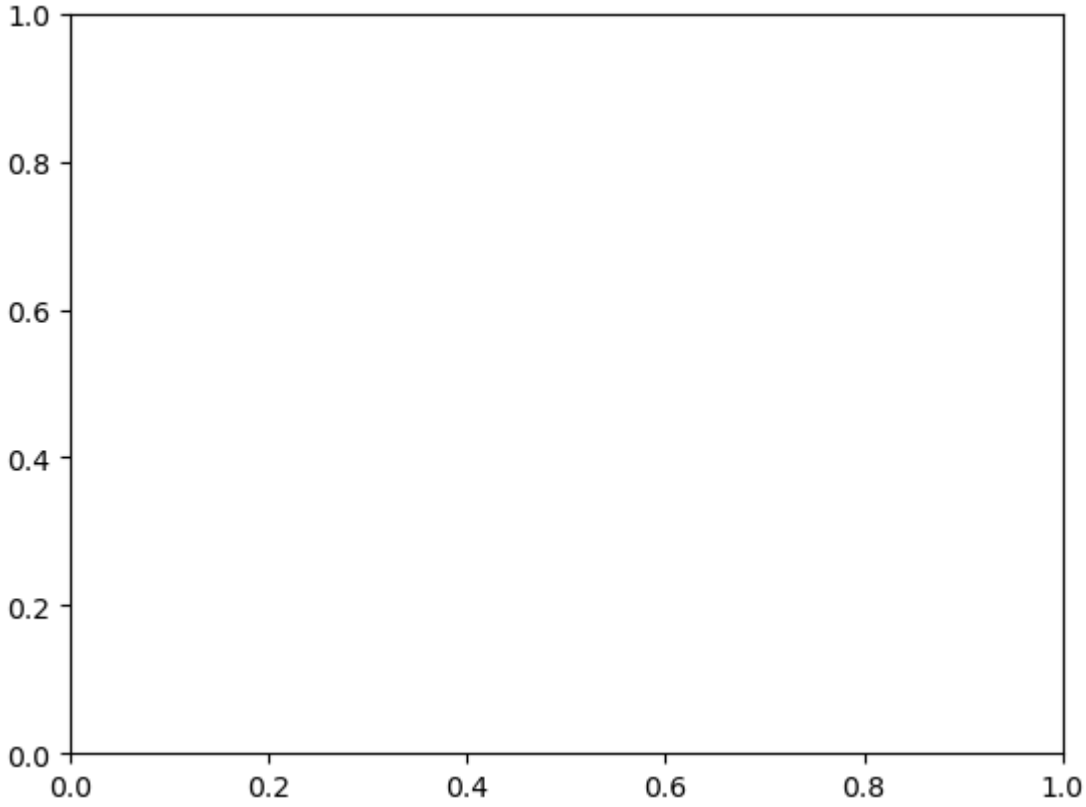


In [5]:
```
# get current figure information

print(plt.gcf())
plt.show()
```

```
Figure(640x480)
<Figure size 640x480 with 0 Axes>
```

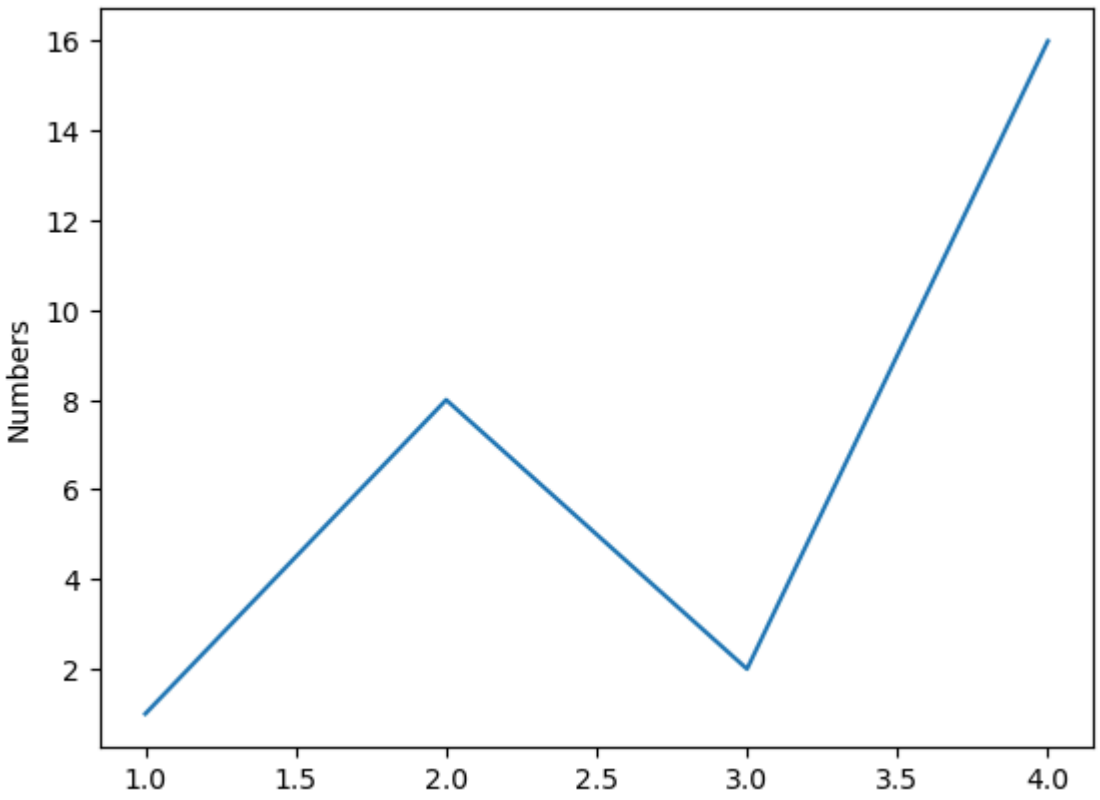
In [6]:
```
# get current axis information

print(plt.gca())
plt.show()
```

```
Axes(0.125,0.11;0.775x0.77)
```



Visualization with Pyplot:

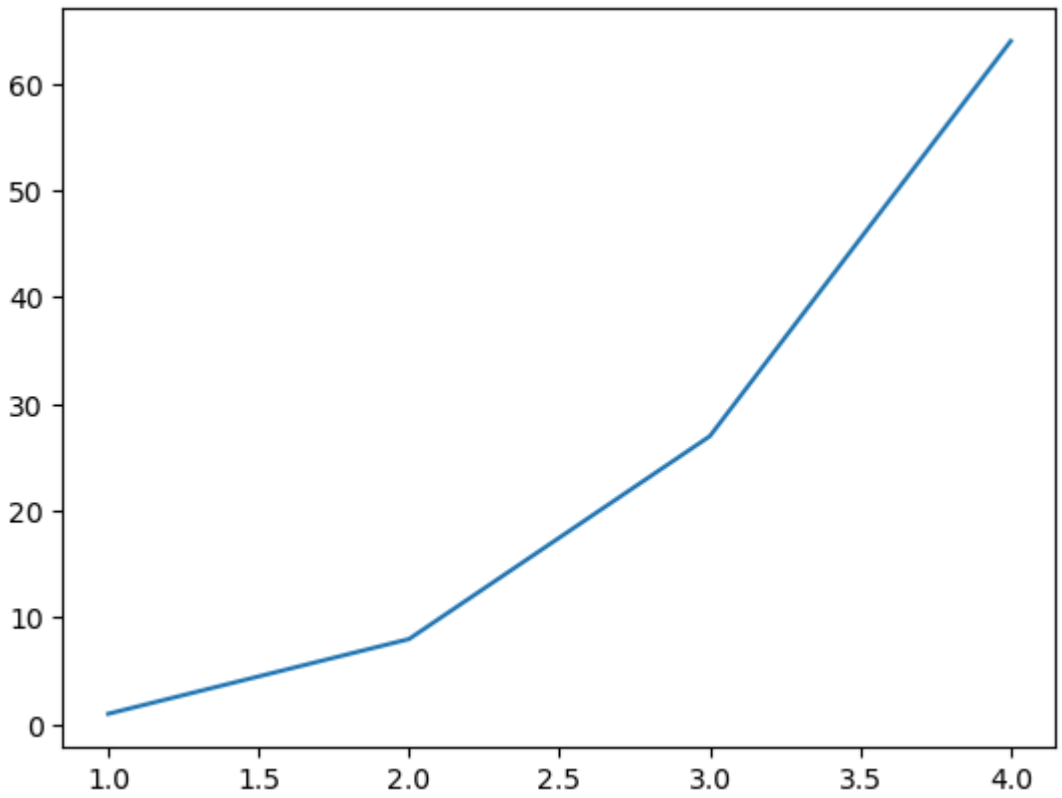
In [7]:
```
plt.plot([1,2,3,4], [1,8,2,16])
plt.ylabel('Numbers')
plt.show()
```



plot() - A versatile command

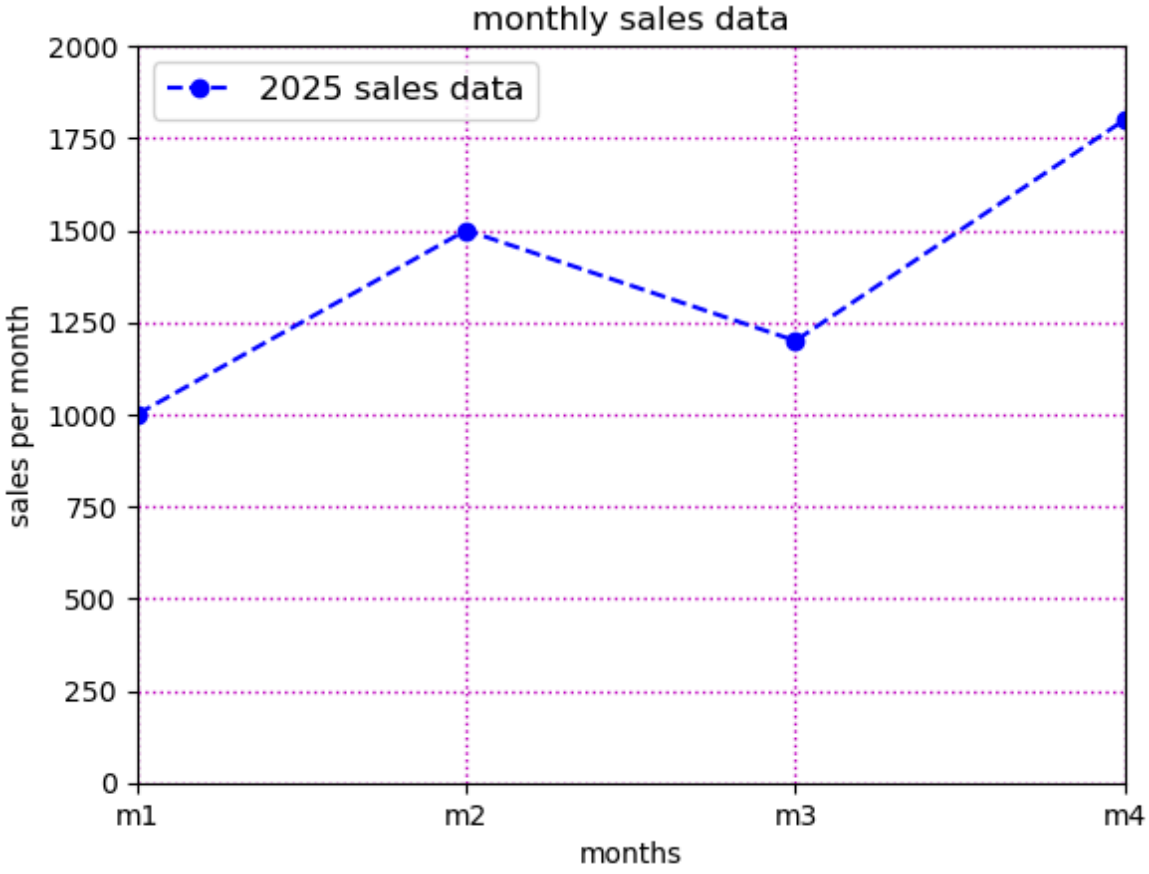
plot() is a versatile command. It will take an arbitrary number of arguments. For example, to plot x versus y, we can issue the following command:-

In [8]:
```
import matplotlib.pyplot as plt
plt.plot([1, 2, 3, 4], [1, 8, 27, 64])
plt.show()
```

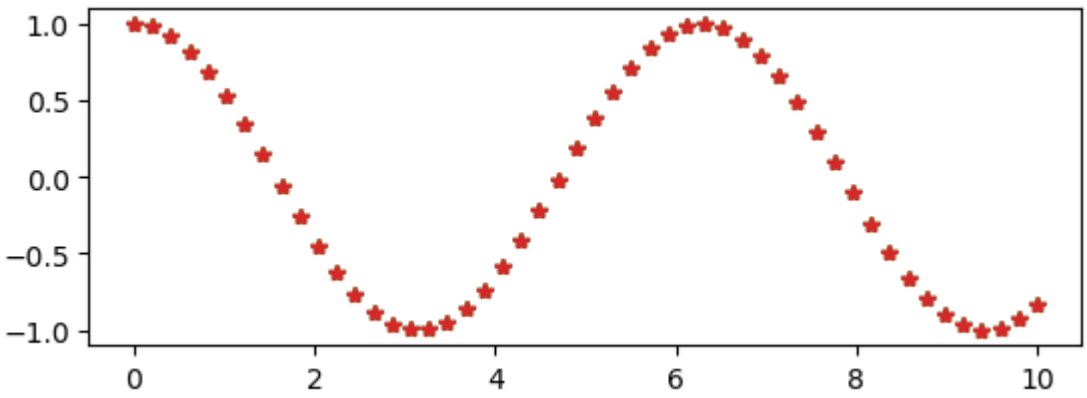


In [9]:
```
import matplotlib.pyplot as plt
x=['mon','tues','thurs','fri']
y=[20,10,15,8]
plt.plot(x,y)
plt.title("bakery slaes this week")
plt.xlabel('day of the week')
plt.ylabel('sales per day')
plt.show()
```

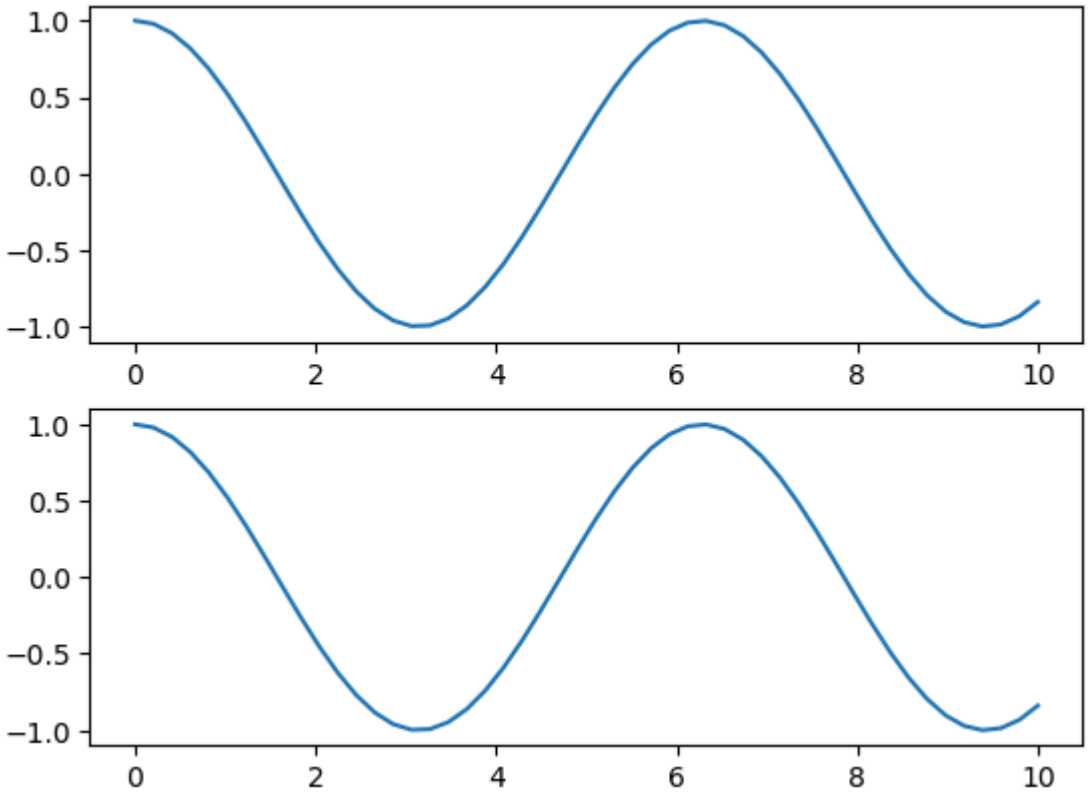
In [14]:
```
#plt.plot(x,y,color='color name',linestyle='line_style',linewidth=value,marker='
import matplotlib.pyplot as plt
months=[1,2,3,4]
sales=[1000,1500,1200,1800]
plt.plot(months,sales,color='blue',linestyle='--',marker='o',label='2025 sales d
plt.xlabel('months')
plt.ylabel('sales per month')
plt.title("monthly sales data")
plt.legend(loc='upper left',fontsize=12)
plt.grid(color='m',linestyle=':',linewidth=1)
plt.xlim(1,4)
plt.ylim(0,2000)
plt.xticks([1,2,3,4],['m1','m2','m3','m4'])


plt.gca()
plt.show()
```



In [18]:
```
# carete a first of two panel and set current axis
plt.subplot(2,1,1) #rows,cols,panel number)
plt.plot(x1,np.cos(x1),'*')
plt.show()
```



In [23]:
```
# Create a plot figure
plt.figure()
# Creeate firrst of two panel and set current axis
plt.subplot(2,1,1)# (rows,cols,panel number)
plt.plot(x1,np.cos(x1))
# Create the second of two panels and set current axis
plt.subplot(2,1,2)
plt.plot(x1,np.cos(x1));
plt.show()
```

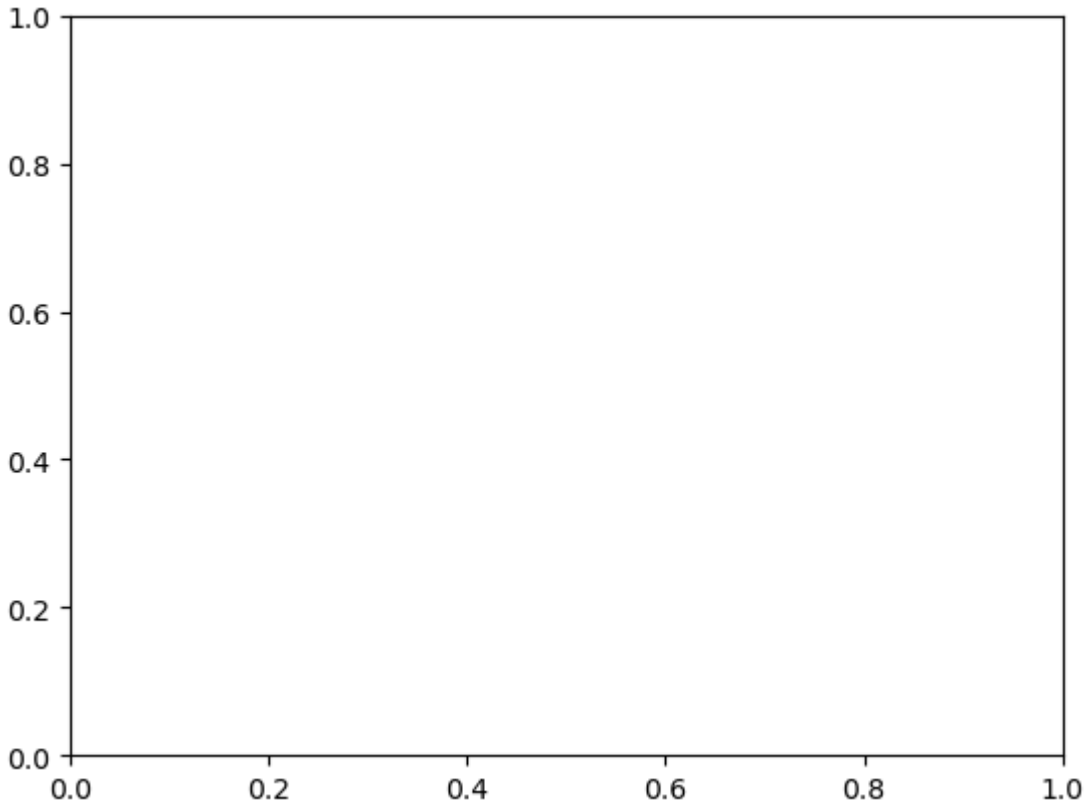


In [25]:
```
# get current figure information
print(plt.gcf())
plt.show()
```

```
Figure(640x480)
<Figure size 640x480 with 0 Axes>
```

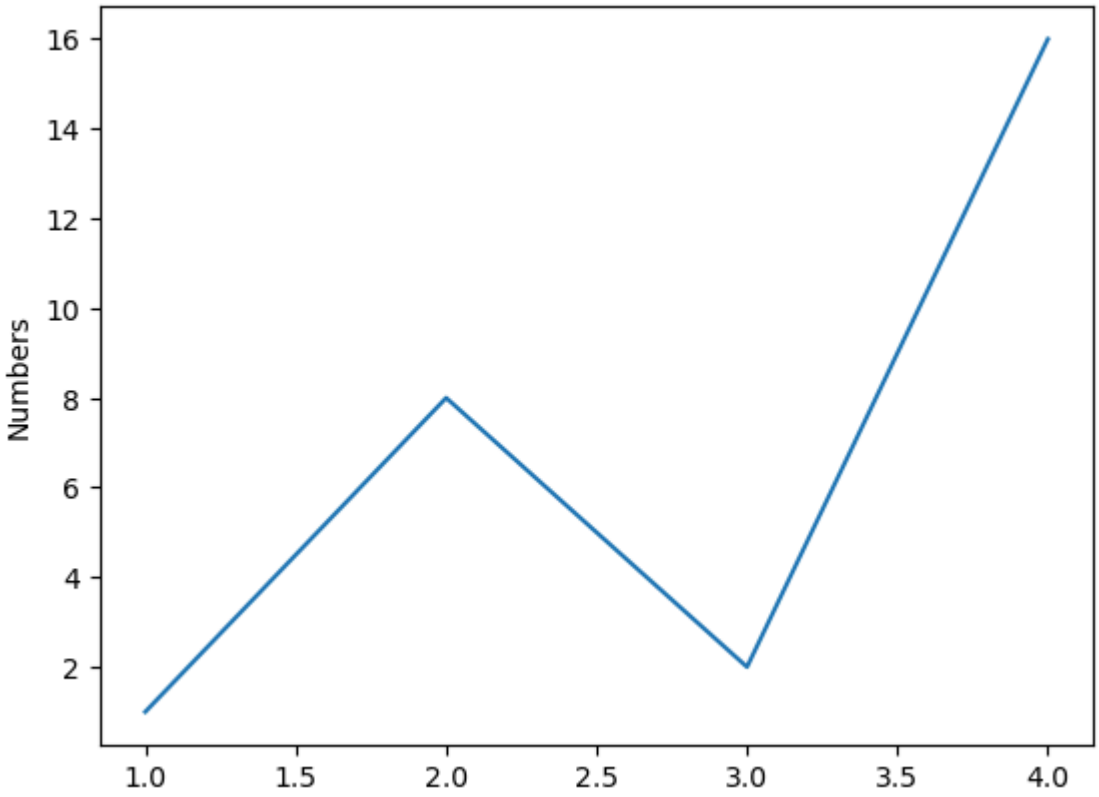
In [26]:
```
# get current axis information
print(plt.gca())
plt.show()
```

```
Axes(0.125,0.11;0.775x0.77)
```

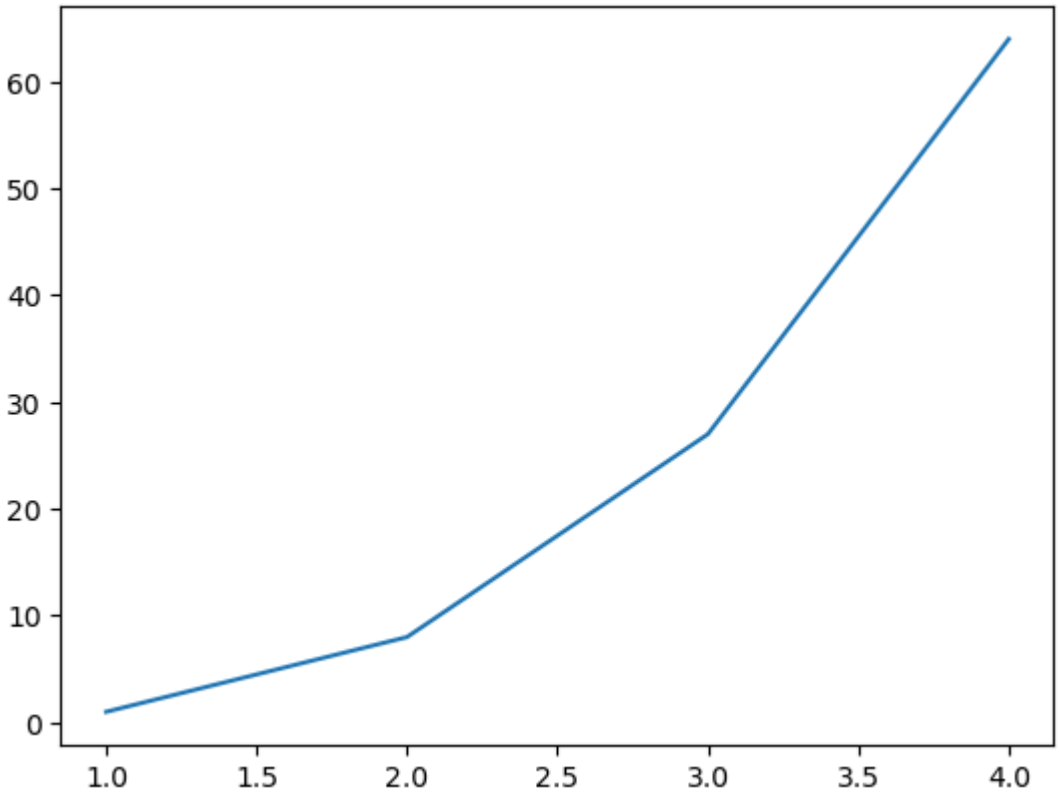


In [27]:
```
# Visualization with Pyplot
```

In [28]:
```
plt.plot([1,2,3,4], [1,8,2,16])
plt.ylabel('Numbers')
plt.show()
```



In [30]:
```
plt.plot([1,2,3,4],[1,8,27,64])
plt.show()
```



In [ ]: