In [ ]:
```
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# AMATH 301 WI 2023
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# AMATH 301 HW #1b Writeup section:
# In this program we explore matplotlib plotting
import numpy as np
import matplotlib.pyplot as plt
```
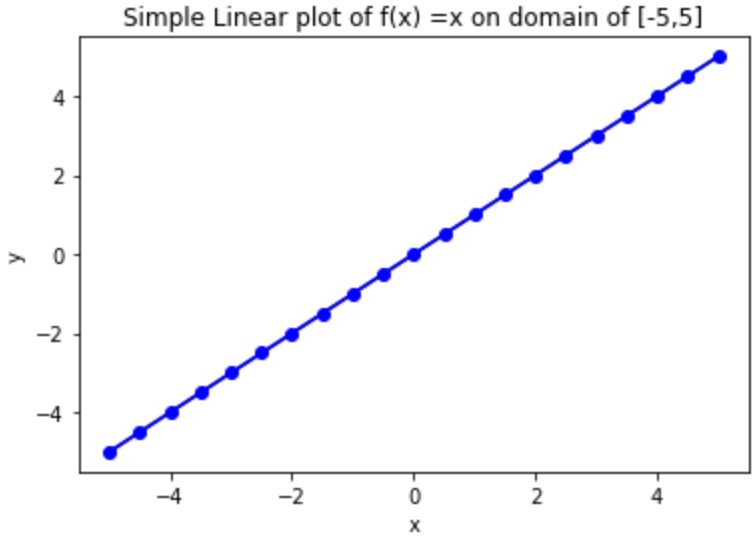
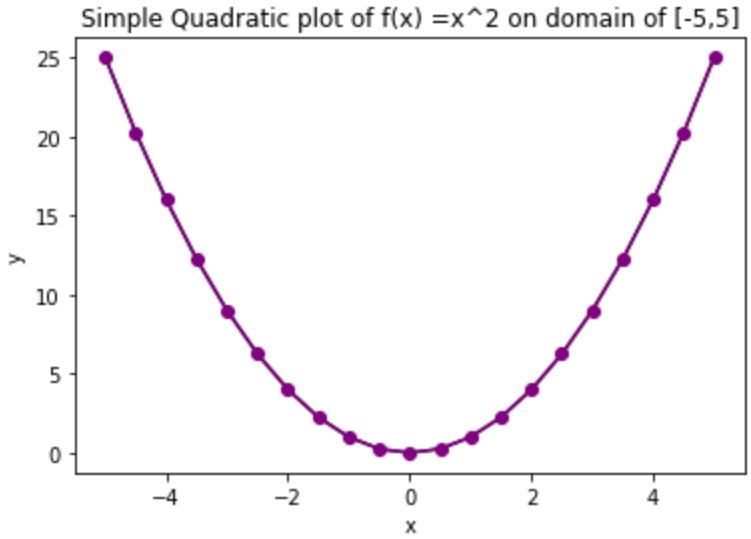

In [ ]:
```
#Q1
#Q1 Practice Plotting a Linear plot
x = np.arange(-5,5+0.5,0.5)
y = x
plt.plot(x,y,color='black')
plt.plot(x,y,color='blue',marker='o')
plt.title('Simple Linear plot of f(x) =x on domain of [-5,5]')
plt.xlabel('x')
plt.ylabel('y')
plt.show()
```




Out[ ]:
```
'\nThere is a strong positive linear relationship between the x and y varia
bles.\n\n'
```

There is a strong positive linear relationship between the x and y variables.

In [ ]:
```
# Q2
#Q2 Practice Plotting a Quadratic plot
x = np.arange(-5,5+0.5,0.5)
y2 = x**2
plt.plot(x,y2,color='black')
plt.plot(x,y2,color='purple',marker='o')
plt.xlabel('x')
plt.ylabel('y')
plt.title('Simple Quadratic plot of f(x) =x^2 on domain of [-5,5]')
plt.show()
```




There is a quadratic relationship between x and y.