

Program:

```
#plotting multiple graph together
```

```
import matplotlib.pyplot as plt
```

```
import numpy as np
```

```
x = np.linspace(-3,3,100)
```

```
y1 = x*np.sin(x**2)
```

```
y2 = np.exp(-x**2/2)
```

```
y3 = y1+y2
```

```
plt.plot(x,y1,x,y2,x,y3)
```

```
plt.show()
```

```
x = np.linspace(-3,3,100)
```

```
y1 = x*np.sin(x**2)
```

```
y2 = np.exp(-x**2/2)
```

```
y3 = x*np.sin(x**2)+np.exp(-x**2/2)
```

```
plt.plot(x,y1,'r',label='$y_1$')
```

```
plt.plot(x,y2,'b--',label='$y_2$')
```

```
plt.plot(x,y3,'g:',label='$y_3$')
```

```
plt.legend()
```

```
plt.show()
```

Output:

