In [1]:
```python
import matplotlib.pyplot as plt
from numpy.random import rand
a=rand(100)
b=rand(100)
plt.scatter(a,b)
plt.show()
```
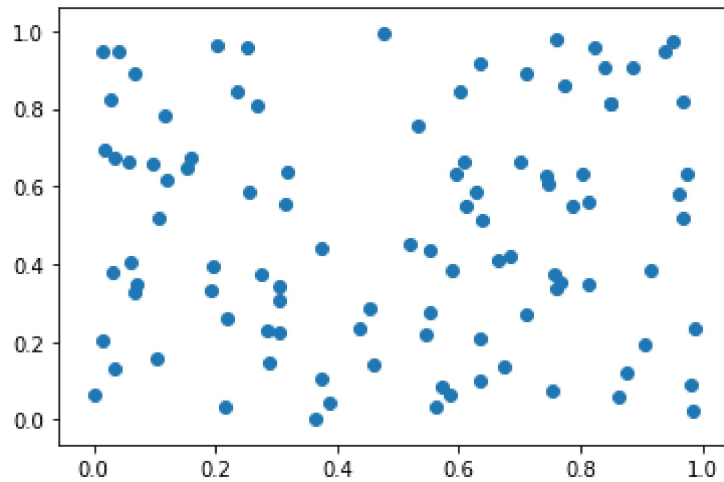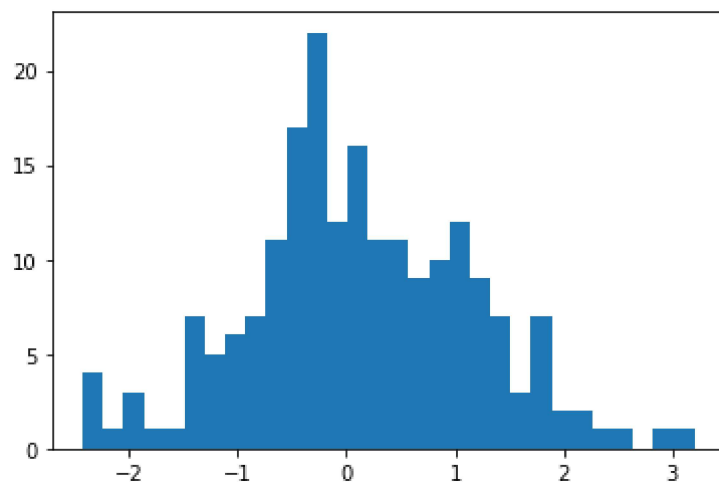

In [2]:
```python
import matplotlib.pyplot as plt
from numpy.random import normal, rand
x=normal(size=200)
plt.hist(x, bins = 30)
plt.show()
```

In [8]:
```python
from matplotlib import cm
from mpl_toolkits.mplot3d import Axes3D
import matplotlib.pyplot as plt
import numpy as np

fig = plt.figure()

ax=fig.gca(projection = '3d')

X = np.arange(-5, 5, 0.25)

Y = np.arange(-5, 5, 0.25)

X, Y = np.meshgrid(X, Y)

R = np.sqrt(X**2, Y**2)

Z = np.sin(R)

surf = ax.plot_surface(X, Y, Z, rstride = 1, cstride = 1, cmap = cm.coolwarm)

plt.show()
```
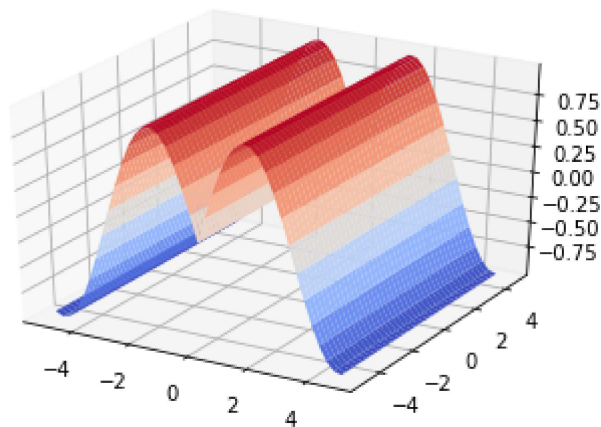
In [13]:
```python
from matplotlib import cm
from mpl_toolkits.mplot3d import Axes3D
import matplotlib.pyplot as plt
import numpy as np

fig = plt.figure()

ax=fig.gca(projection = '3d')

X = np.arange(-2, 2, 0.35)

Y = np.arange(-2, 2, 0.35)

X, Y = np.meshgrid(X, Y)

R = np.sqrt(X**2, Y**2)

Z = np.sin(R)

surf = ax.plot_surface(X, Y, Z, rstride = 1, cstride = 1, cmap = cm.coolwarm)

plt.show()
```
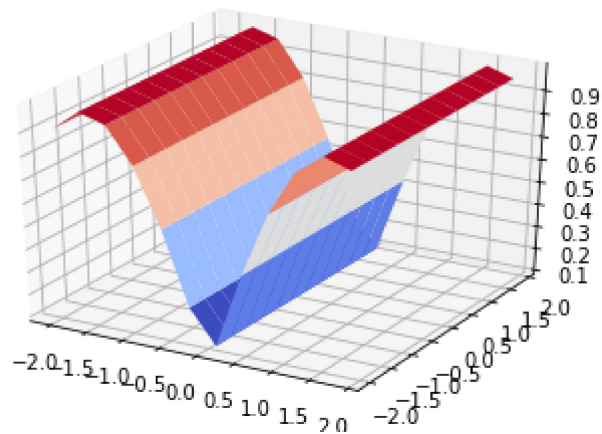
In [14]:
```python
from matplotlib import cm
import numpy as np

a = np.linspace(0, 10, 100)

b = np.exp(-a)

plt.plot(a,b)

plt.show()
```