

# Surface

In [1]:

```
import numpy as np
import matplotlib.pyplot as plt
```

In [2]:

```
x4 = np.linspace(-5,5,50)
y4 = np.linspace(-5,5,50)
```

In [3]:

```
# Plotting Surface using sqrt
plt.figure(figsize=[15,10])

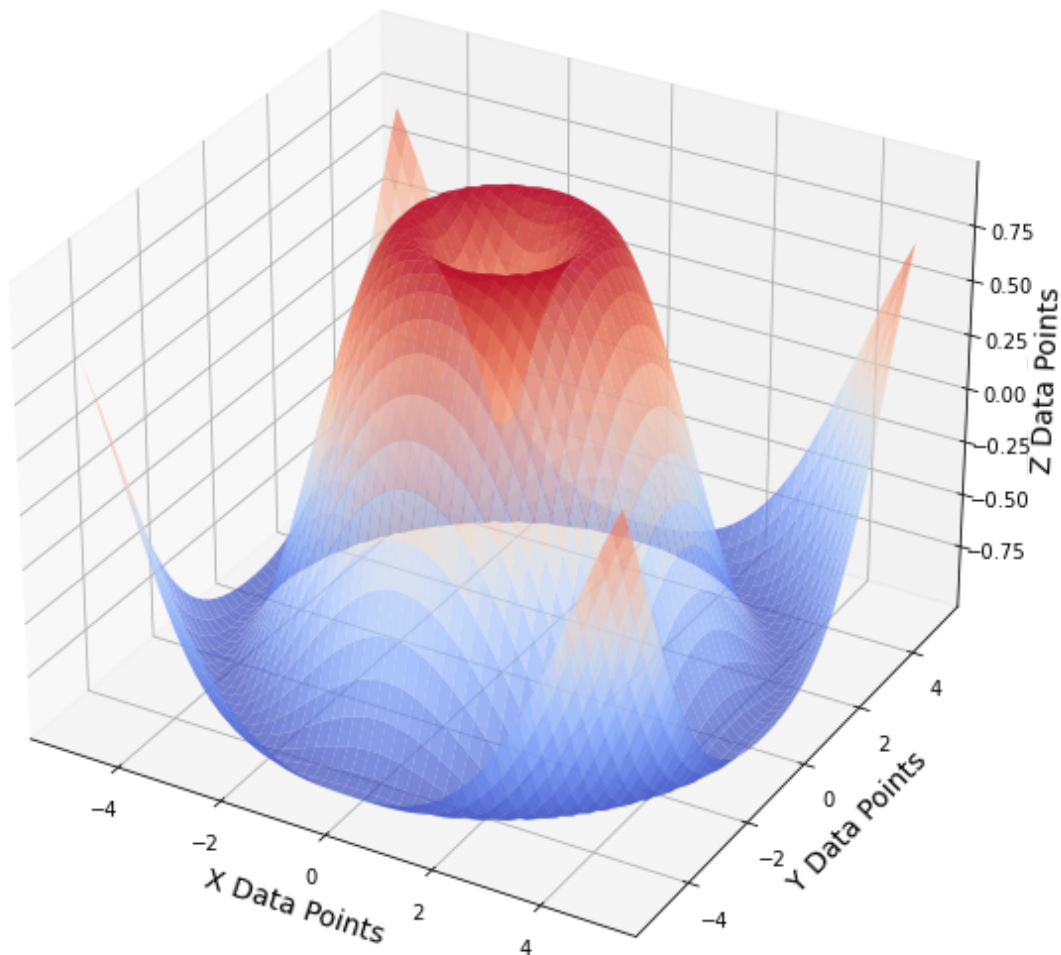
ax = plt.axes(projection="3d")
ax.set_title("3D Surface using Square Root Function", fontsize=16)
ax.set_xlabel("X Data Points", fontsize=14)
ax.set_ylabel("Y Data Points", fontsize=14)
ax.set_zlabel("Z Data Points", fontsize=14)

x4,y4 = np.meshgrid(x4,y4)

ax.plot_surface(x4,y4,np.sin(np.sqrt(x4 ** 2 + y4 ** 2)),alpha=0.7, cmap="coolwarm")

plt.show()
```

3D Surface using Square Root Function



In [4]:

```
# Plotting Surface using cbrt
plt.figure(figsize=[15,10])

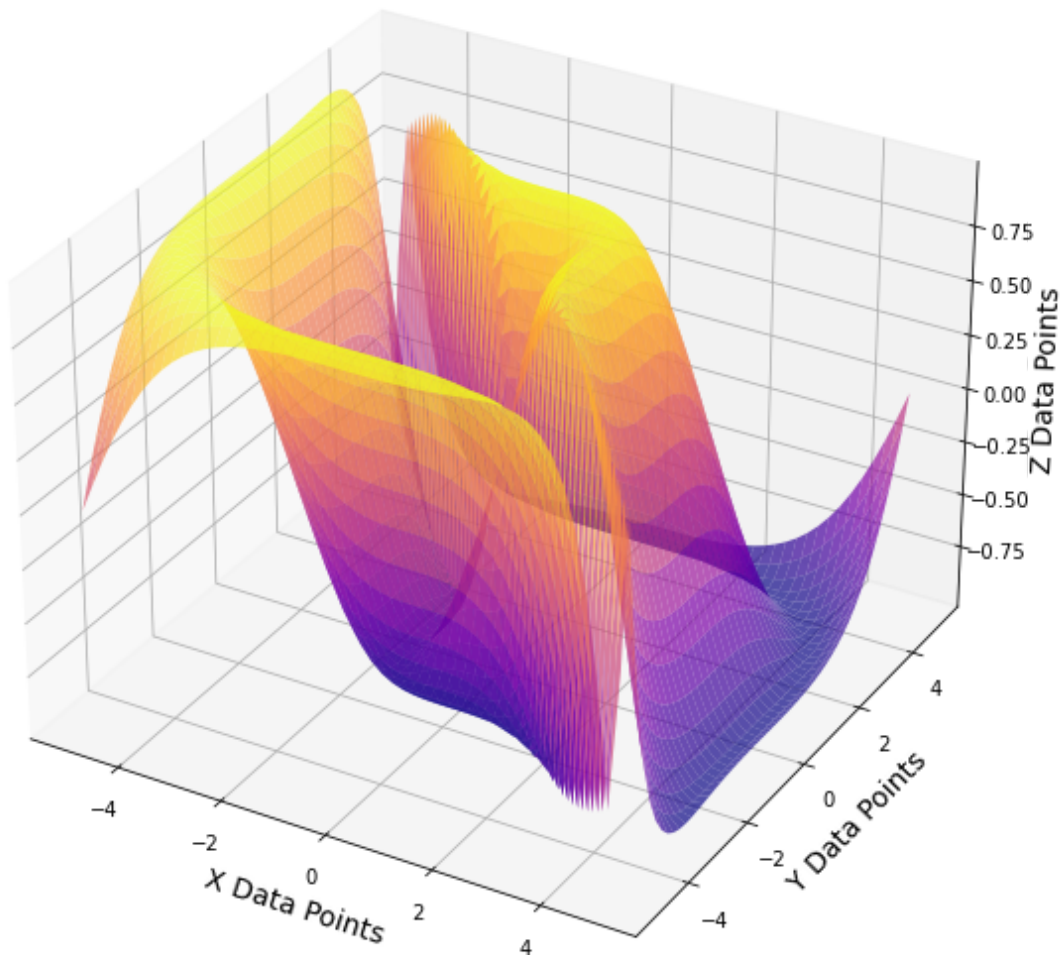
ax = plt.axes(projection="3d")
ax.set_title("3D Surface using Cube Root Function", fontsize=16)
ax.set_xlabel("X Data Points", fontsize=14)
ax.set_ylabel("Y Data Points", fontsize=14)
ax.set_zlabel("Z Data Points", fontsize=14)

#x4,y4 = np.meshgrid(x4,y4)

ax.plot_surface(x4,y4,np.sin(np.cbrt(x4 ** 3 + y4 ** 3)), alpha=0.7, cmap="plasma")

plt.show()
```

3D Surface using Cube Root Function



In [ ]:

