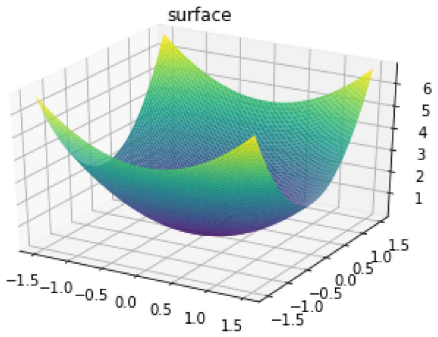
Kuliah 12 & 13

Optimization

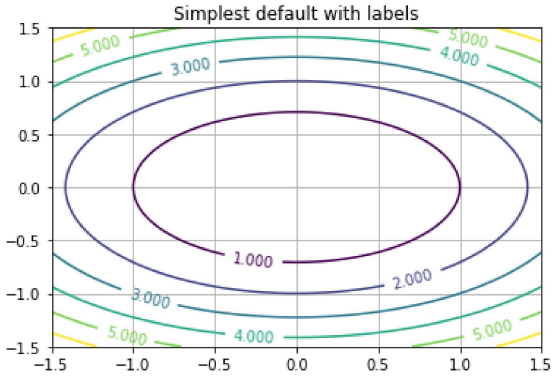
In [1]:
```
import matplotlib
import numpy as np
import matplotlib.pyplot as plt
from mpl_toolkits import mplot3d
```

In [8]:
```
def f(x, y):
    #z=2*x*y+2*x-x**2-2*y**2
    z=x**2 + 2*y**2
    return z

x = np.linspace(-1.5,1.5, 100)
y = np.linspace(-1.5, 1.5, 100)

X, Y = np.meshgrid(x, y)
Z = f(X, Y)
```

In [9]:
```
ax = plt.axes(projection='3d')
ax.plot_surface(X, Y, Z, rstride=1, cstride=1,
                cmap='viridis', edgecolor='none')
ax.set_title('surface');
```

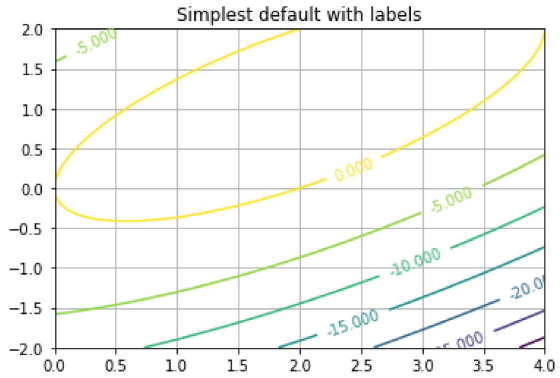


In [10]:
```
plt.figure()
CS = plt.contour(X, Y, Z)
plt.clabel(CS, inline=1, fontsize=10)
plt.title('Simplest default with labels')
plt.grid()
plt.show()
```



In [18]:
```
def f(x1, x2):
    y=2*x1*x2+2*x1-x1**2-2*x2**2
    return y

x1 = np.linspace(0,4, 1000)
x2 = np.linspace(-2, 2, 1000)

X1, X2 = np.meshgrid(x1, x2)
Y = f(X1, X2)
```

In [19]:
```
plt.figure()
CS = plt.contour(X1, X2, Y)
plt.clabel(CS, inline=1, fontsize=10)
plt.title('Simplest default with labels')
plt.grid()
plt.show()
```



In [ ]: