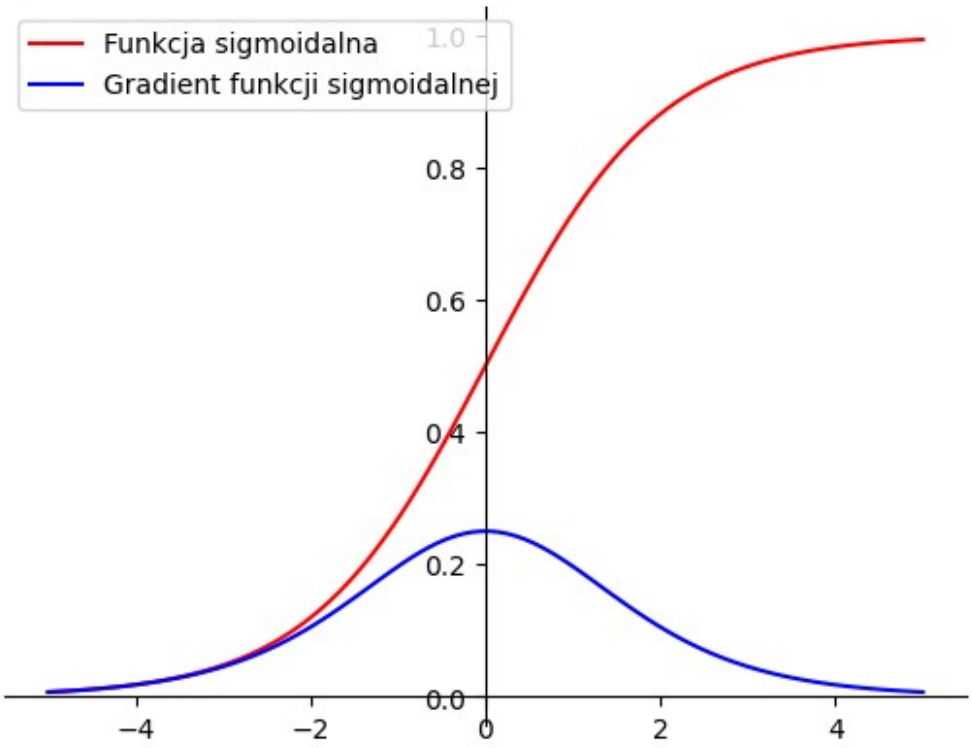
```
import matplotlib.pyplot as plt
import numpy as np

def sigmoid(x):
    return 1/ (1+np.exp(-x))

def sigmoid_gradient(x):
    return sigmoid(x) * (1 - sigmoid(x))

# 100 linearly spaced numbers
x = np.linspace(-5,5,100)

# the function, which is y = sigmoid(x) here
y = sigmoid(x)

gradient = sigmoid_gradient(x)

# setting the axes at the centre
fig = plt.figure()
ax = fig.add_subplot(1, 1, 1)
ax.spines['left'].set_position('center')
ax.spines['bottom'].set_position('zero')
ax.spines['right'].set_color('none')
ax.spines['top'].set_color('none')
ax.xaxis.set_ticks_position('bottom')
ax.yaxis.set_ticks_position('left')

# plot the function
plt.plot(x, y, 'r', label='Funkcja sigmoidalna')
plt.plot(x, gradient, 'b', label='Gradient funkcji sigmoidalnej')
plt.legend(loc='upper left')

# show the plot
plt.show()
```


Funkcja sigmoidalna
Gradient funkcji sigmoidalnej
1.0
0.8
0.6
0.4
0.2
0.0
−4
−2
0
2
4