```
import matplotlib.pyplot as plt
import numpy as np
from scipy.integrate import quad
import sympy as sy

x = np.linspace(0,5,100)
y = x**2
plt.plot(x,y)

def integrand(x):
    return x**2

plt.fill_between(x, integrand(x), where = [(x>2) and (x<4) for x in x], color = 'purple')

x = sy.Symbol('x')
print("Result is: ", sy.integrate(integrand(x), (x,2,4)))


ans, err = quad(integrand, 2, 4)
print("The expression:",ans)
```