```
1
2     import numpy as np
3     import matplotlib.pyplot as plt
4     from funkyyak import grad
5
6     # Define a function capable of taking `Node` objects
7     def tanh(x):
8         return (1.0 - np.exp(-x))  / ( 1.0 + np.exp(-x))
9
10    d_fun = grad(tanh)  # First derivative
11    dd_fun = grad(d_fun) # Second derivative
12    ddd_fun = grad(dd_fun) # Third derivative
13    dddd_fun = grad(ddd_fun) # Fourth derivative
14    ddddd_fun = grad(dddd_fun) # Fifth derivative
15    dddddd_fun = grad(ddddd_fun) # Sixth derivative
16
17    x = np.linspace(-7, 7, 200)
18    plt.plot(x, map(tanh, x),
19             x, map(d_fun, x),
20             x, map(dd_fun, x),
21             x, map(ddd_fun, x),
22             x, map(dddd_fun, x),
23             x, map(ddddd_fun, x),
24             x, map(dddddd_fun, x))
25
26    plt.axis('off')
27    plt.savefig("tanh.png")
28    plt.clf()
```