**import random**

**import math**

**def tanh(x):**

**return (math.exp(x) - math.exp(-x)) / (math.exp(x) + math.exp(-x))**

**weights = [random.uniform(-0.5, 0.5) for \_ in range(4)]**

**b1 = 0.5**

**b2 = 0.7**

**input\_vector = [0.1, -0.2, 0.4]**

**def network\_output(input\_vector, weights, b1, b2):**

**z1 = sum(input\_vector[i] \* weights[i] for i in range(3)) + b1**

**a1 = tanh(z1)**

**z2 = a1 \* weights[3] + b2**

**a2 = tanh(z2)**

**return a2**

**output = network\_output(input\_vector, weights, b1, b2)**

**print("Network output:", output)**