

FFR135 Artificial Neural Networks

Homework 2.1

Question 1: For the first question we have 2^n different inputs. For each Boolean function of the inputs we can either have 0 or 1 as an output. This leads to the amount of different Boolean functions being:

$$2^{(2^n)}$$

Where n is the dimension. In our case $n=3$ and thus:

$$2^{(2^3)} = 256$$

Question 2: I simply figured that since we are working with a cube it will be 6 symmetries for each function

Question 3: The answer for this was simply looked up on the internet