Question 2

a) Using the rules specified in the assignment, the calculation looks as follows:

Diagram

Description automatically generated

b) If the inputs are increased by a coefficient of 2, the outputs are going to scale up equally due to linear nature of the function. Therefore, one can simply multiply the values in neurons from Figure 3 by 2 instead of doing the full calculation. The two output neurons will be equal to -4 (=-2\*2) and 6 (=3\*2) respectively.