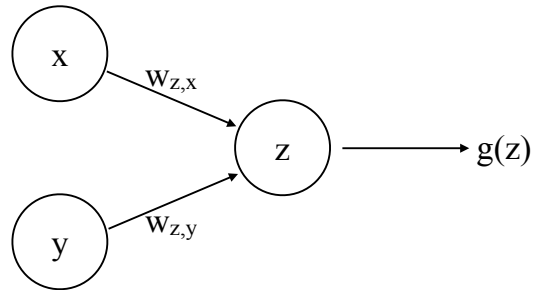


Artificial Neural Networks (ANNs)

Group members (1 to 3): _____



For the simple 1-layer ANN (a perceptron) shown above, determine weights $w_{z,x}$ and $w_{z,y}$ along with a bias $w_{z,0}$ such that the output correctly classifies the training data

x	y	output
0	0	0
0	0.5	1
1	0	0
1	1	1

where $z = w_{z,x}x + w_{z,y}y + w_{z,0}$ and $g(z) = \frac{1}{1 + e^{-z}}$. When classifying, the output $g(z)$ is rounded to 0 or 1.