



# Connecting Neuroscience and Machine Learning

## Don't get Eaten by the Tiger

Name: \_\_\_\_\_ Date: \_\_\_\_\_

## Neuroscience of Decision Making

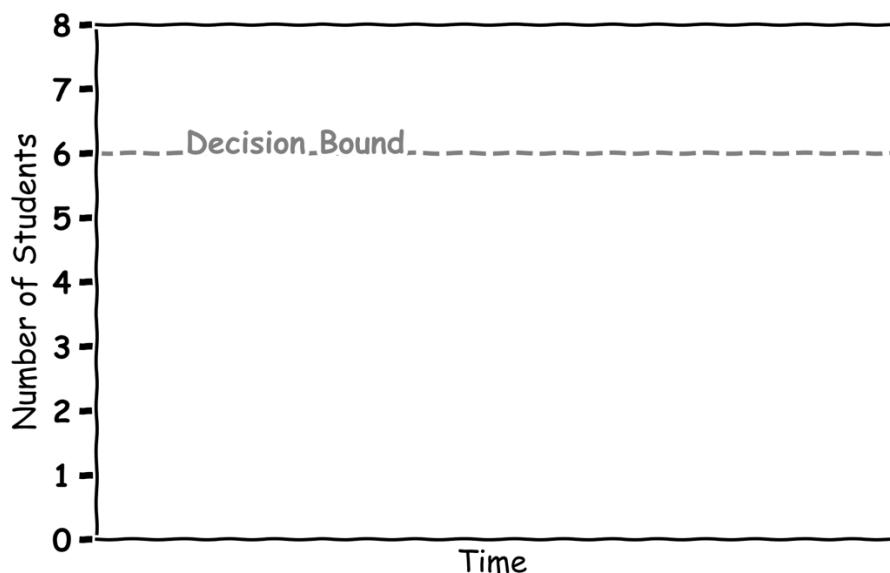
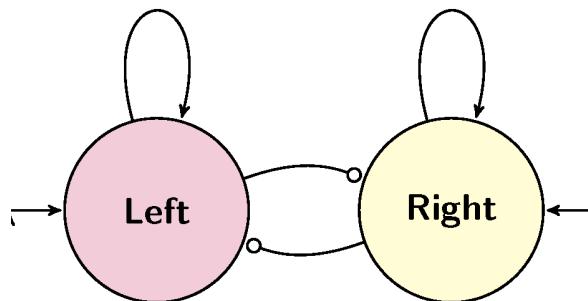
### The Neuron

What is the basic **unit of information** for a neuron?

How do we **encode** it mathematically?

### Two Populations of Neurons

Label the graph:



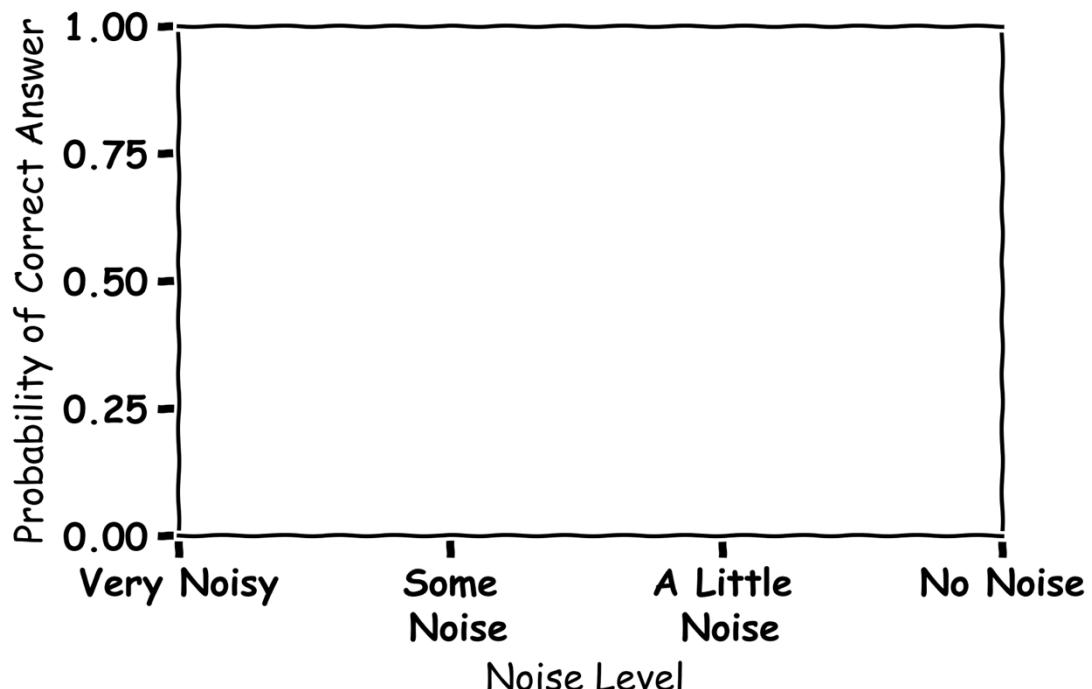


## Making Decisions

Label the graph:

Where is the **50-50 chance line**?

Fill in the graph with your answers:





# Machine Learning of Decision Making

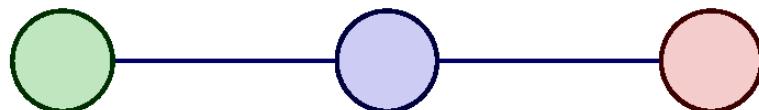
## The Algorithm

What is an **algorithm**? Give an **example**?

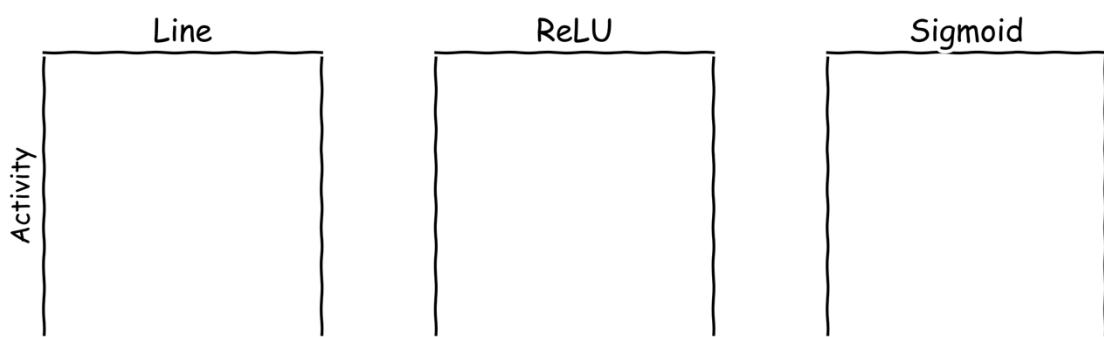
What is **Machine Learning**?

## The Node

**Label** the graph:



Draw the **functions** could be used in a node and what are they good for?

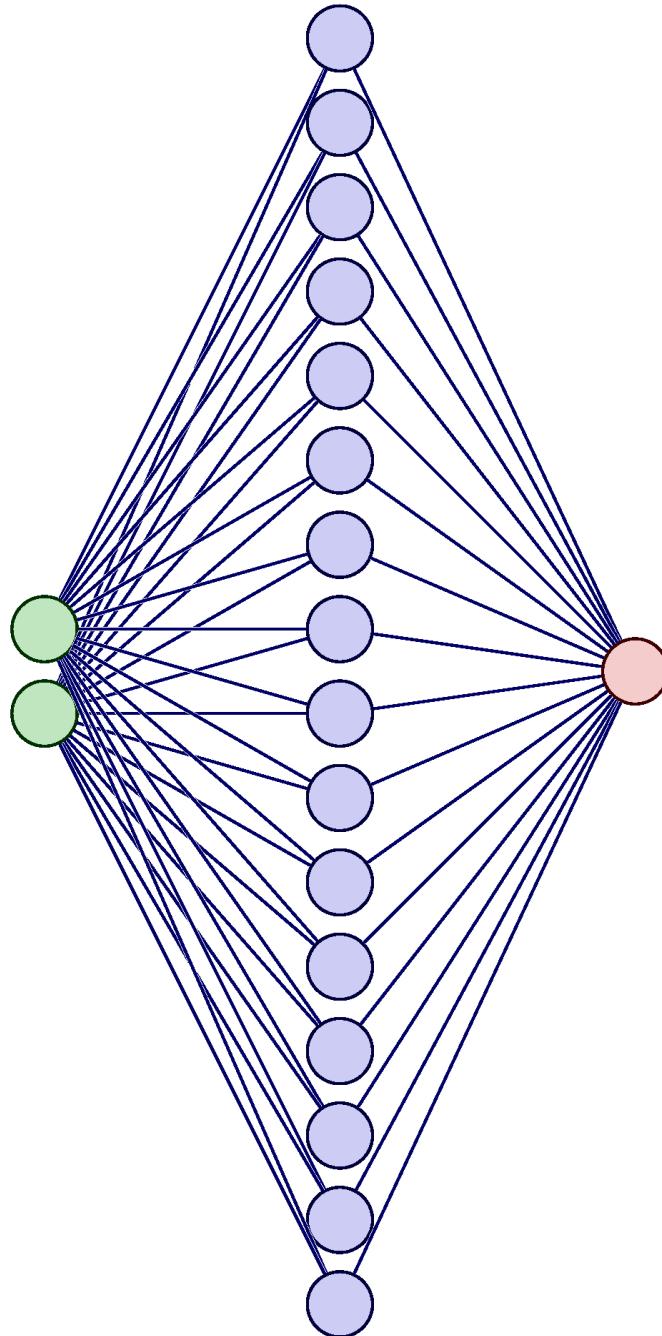


What does an **Artificial Neural Network** learn?



## An Artificial Neural Network

**Label** the graph:



How are you **smarter than AI?**