Basic premise of learning

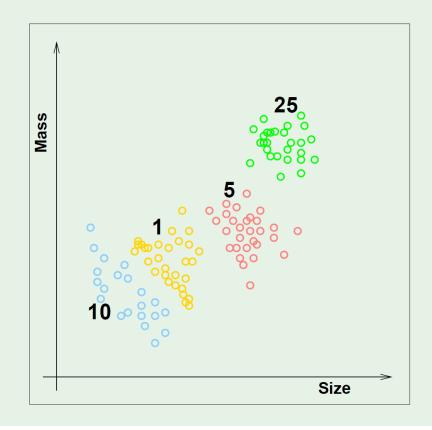
"using a set of observations to uncover an underlying process"

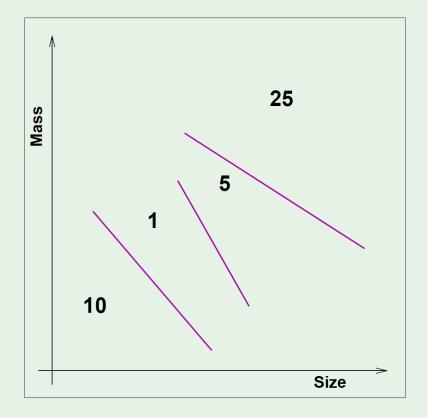
broad premise \implies many variations

- Supervised Learning
- Unsupervised Learning
- Reinforcement Learning

Supervised learning

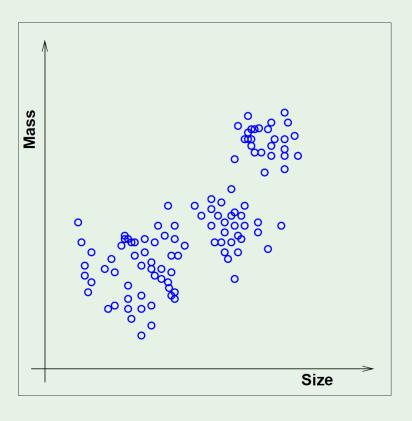
Example from vending machines - coin recognition





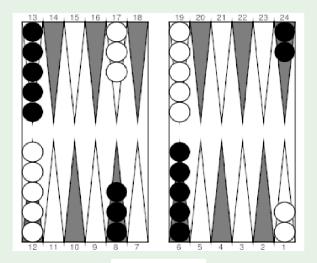
Unsupervised learning

Instead of (input, correct output), we get (input, ?)



Reinforcement learning

```
Instead of (input,correct output), we get (input,some output,grade for this output)
```



The world champion was a neural network!

