Algorithm run time analysis

- The measure of the efficiency of an algorithm
  - The measurement of the performance of an algorithm.
- Take for example a car
  - What is it's fuel efficiency?
    - 20 p/g motorway
    - 15 p/g town
    - 10 p/g congestion
  - Above there is best, average and worse case scenarios
- Omega
  - minimum time required for the performance best case scenario
- Big O
  - Worse case scenario.
- Theta
  - Average time it takes.

- Using an array
  - Omega is if the value is found in the beginning (1)
  - Theta middle n/2
  - Big O end
- So the worse case scenario will depend on the size of n. Big O(n)