Unit 3 – Lesson 6: Defining Algorithms

Algorithm

- Precise set of rules for how to solve a problem

Algorithms must:

1. have an order
2. have clear instructions
3. operations that can be done by a computer
4. produce a result
5. stop in a finite amount of time

So what makes a good algorithm?

- Speed?
- Easier to Code?
- Memory Use?
- Easy to maintain?
- Security?
- Reliability?

How doe we measure these?

Why analyze algorithms?

- predict performance
  - Does this work?
  - Will it work if ...?

- make decisions
  - which algorithm is best in this circumstance?

There are certain patterns in algorithms that are standard

- For instance – sorting data

Vocabulary

Algorithm	Precise set of rules for how to solve a problem.