**Question 2**

Prove

Fibonacci : 1, 1, 2, 3, 5…

**Solution**

1. Take two base cases and prove it is true for the two base cases, i.e n = 5 and n = 6

**Show true for**

**Show true for**

1. Assume it is true for

For this assumption to be true both must be true.

1. Prove for

From our assumption in (2) we know that

Expand and simplify the LHS

Since