Sample for the exam2

**Exercise 1**: Construct the table for (Integers modulo 3)

**Exercise 2**: Let

1. Show that is a Poset
2. Draw the Hasse Diagram. Find the minimal and the maximal elements.

**Exercise3**:

Show by using induction that

**Exercise 4**: Consider the recurrence relation

Prove by induction that

for

**Exercise5**: Define a set recursively as

B:3

R1: if then

R2: If then

Show by induction that every element of is divisible by 3.

**Exercise 6**: Let S be an Slist.

Define a recursive function 3 as follows:

B: Supopose . Then

R:Suppose then .

Evaluate showing all the work.

**Exercise7**: Let be an Slist

1. Compute Search [25,L], Showing all steps.
2. Compute BSearch[25,L] , showing all steps