Assignment 11 – text answers

Exercise 1

We will start with a basecase: fact (1).

The program will compute:

1*fact(1-1)

Since the integer 0 is less than 1, integer 1 is returned to function.

Our next case is fact(2)

The program will compute:

2*fact(2-1)

Which gives us the result 2 since 2*1*fact(1-1) = 2*1 = 2

Our next case is fact(3)

The program will compute:

3*fact(3-1)

Which is:

3*2*fact(2-1)

Which gives us the result 6 since 3*2*1 = 6

We can conclude that the function computes fact(n) = n*(n-1)*…*(n-n+1).