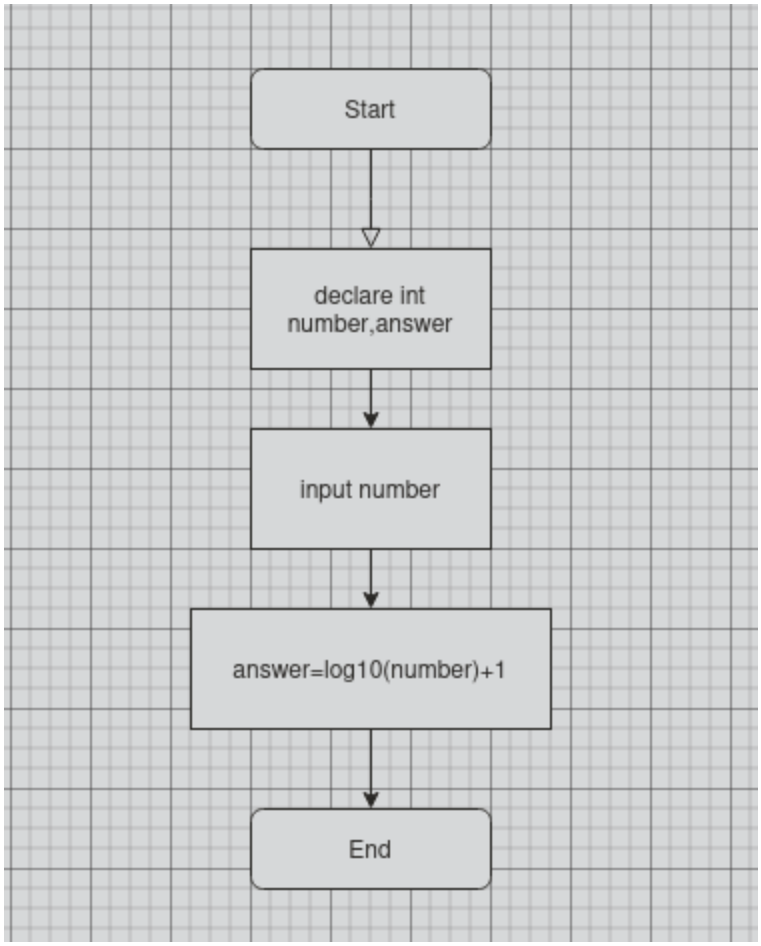
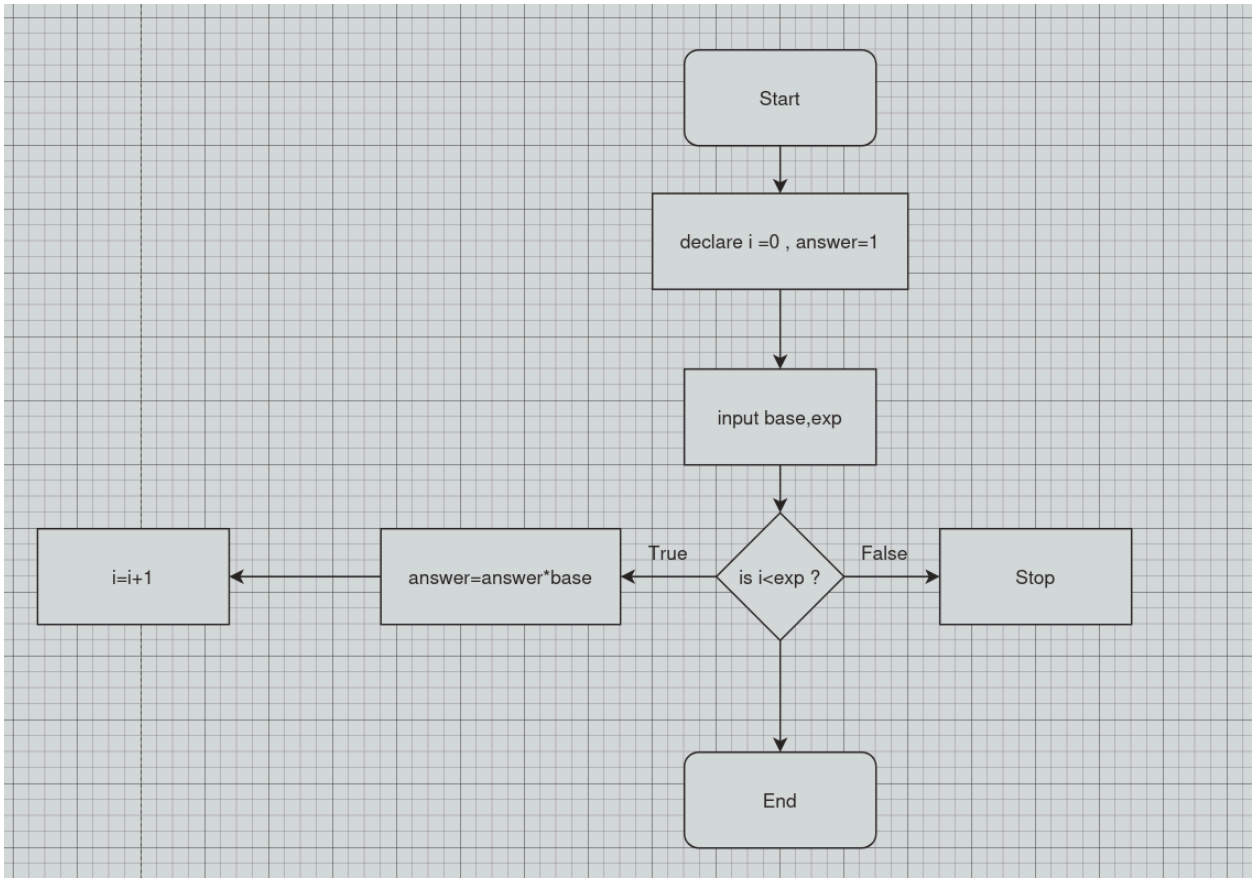
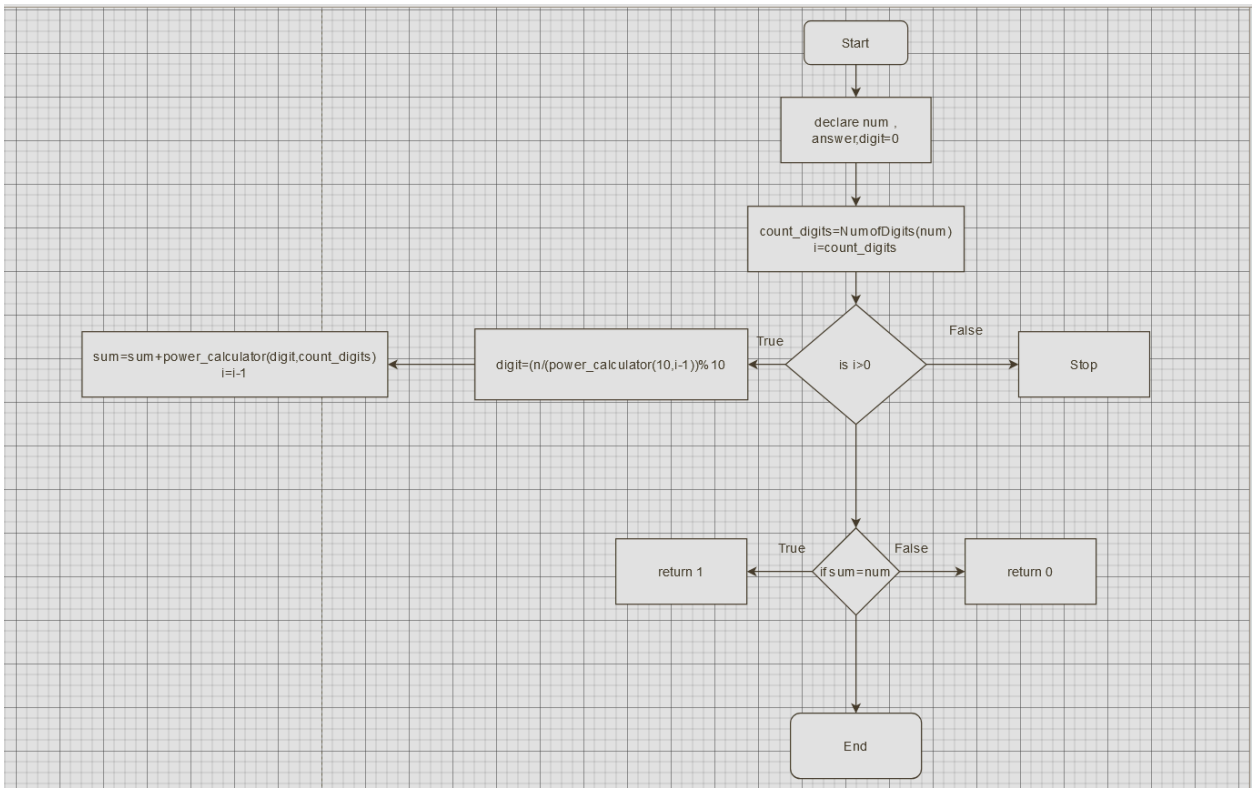



```c
//question 1 part b
#include <math.h>
int NumofDigits(int n)
{
   int answer;
   answer=log10(n)+1;// i use logarithm from math built-in lib
   // log10 +1 a number is mathematically return digits count
   return answer ;
}
```




```
//question 2 part b
int PowerCalculator(int base,int exp)
{
   int answer =1;
   for (int i=0 ; i<exp ; i++)
   {
       answer *=base;
   }
   return answer ;
}
```




```c
// question 3 part b
#include <math.h>
int isArmstrong(int n)
{
   int digit , exponant;
   int digits_count=log10(n)+1;// using logarithem function
   int sum=0 ;
   for(int i =digits_count ; i>0 ; i--)
   {
       digit =0 ;
       exponant = i -1 ;
       digit=(int)(n/(pow(10,exponant)))%10; // using pow function
       sum+=(pow(digit,digits_count));
   }

   if (n== sum) return 1 ;
   else return 0  ;
}
```

سوال 4 : 1- توی void function ما نمیتونیم مقداری رو return کنیم
2-مقادیر در این تابع سیو نمیشن و از بین میروند

```
// question 5 part b
int factoriel(int n )
{
   if ( n==1 || n==0) return 1 ;
   int answer=1 ;
   for (int i=2 ;i<=n;i++ )
   {
       answer*=i ;
   }
   return answer ;
}
int choose(int n , int k )
{
   return factoriel(n)/(factoriel(k)*factoriel(n-k));
}
int NumberofWays(int n )
{
   if (n<2) return 1;
   int answer= 0;
   int coef_2=1;
   while (1)
   {

       if(n-(coef_2*2) >= 0 )
       {
           answer = answer + choose(n-coef_2,coef_2);
           coef_2+=1;
       }
       else break;
   }
   return answer +1;// the reason for +1 is, all jump  1
}
```