

# Correction of Homework #1

## Exercise1.

```
#include<stdio.h>
int main ( )
{
    int n, i, x,p,m,rp ,d1,d2;
    float sq;
    printf ( "enter an integer : " );
    scanf ( "%d" , &n);
    for (i=1; i*i<n;i++)
        m=i*i;
    i--;
    x=(i+1)*(i+1);
    d1=n-m;
    d2=x-n;
    if (d1<d2)
        { p=m;
          rp=i; }
    else
        { p=x;
          rp=i+1; }
    sq=(rp+(n-p)/(2.*rp));
    printf ("root square of %d = :%f ",n,sq);
}
```

## Exercise2.

```
#include<stdio.h>
int main ( )
{
    int n, i ,j ,m , test;
    printf ( "enter an integer : " );
    scanf ( "%d" , &n);
    m=n;
    printf ( "%d= " , n);
    for (i=2; i<n;i++)
    {
        if(n%i==0)
        {
            test=0 ;
            for (j=2; j<i && test ==0;j++)
                if (i%j==0)
                    test=1;
        }
        while(test==0 && m%i==0)
        {
            m=m/i;
            if(m==1)
                printf ("%d",i);
            else
                printf ("%d*",i);
        }
    }
}
```