Assignment-7

`#<include <stdio.h>` included in all answers

1.
```c
int main () {
    int a=0, b=0, c=1, d, x;
    printf (" Enter a number");
    scanf (".1.d", &x);
    while(x)
    {
        d = b+c
        b = a ;
        a = d;
        c = a;
        x--;
    }
    printf ("/.d", b);
    return 0;
}
```

2.
```c
int main () {
    int a=0, b=0, c=1, d, *x;
    printf (" Enter a number");
    scant ("/.d", &x);
    while (x) {
        printf ("/.d", a);
        d = b+c;
        b = a ;
        a = b;
        c = a;
        x--;
    }
    return 0;
}
```

```c
3.   int main() {
     int a=0, b=0, c=1, d, x;
     printf(" Enter a number");
     scanf(" %d", &x);
     while (x>=a) {
        if (x==a)
           break;
        d= b+c;
        b= a;
        a= d;
        c= a; }
     if(x==a)    printf(" In fibonaci series");
     else    printf("Not in fibonacci series");
     return 0; }

4.   int main() {
     int a, b, x1, x2, d, c;
     printf(" Enter a number");
     scanf(" %d %d", &a, &b);
     if (a>b)
     {
        x1= a;
        x2= b; }
     else {
        x1= b;
        x2= a; }
     c= x2;
     for (i=1; i<= x2; x2--) {
        if (c%x2 ==0 && x1/x2 ==0) {
        printf("hcf is %d", x2); }
        exit(0); }}
     return(0); }
```

```
s   int main()
    {
        int x1, x2, i, h;
        printf ("Enter a number");
        scanf ("%d %d", &x1, &x2);
        h = x1 > x2 ? x2 : x1;
        for (i = 1; i <= h; h--)
        {
            if (x1 % h == 0 && x2 % h == 0)
                break;
        }
        if (h == 1)
            printf ("co prime");
        else
            printf ("not co prime");
        return 0;
    }

6.  int main() {
    int x, i;
    for (x = 2; x <= 100; x++)
    {
        for (i = 2; i <= x; i++)
        {
            if (x % i == 0) {
                if (x == i)
                    printf ("%d ", x);
                break; }
        }
    }
        return 0; }
```

```c
(7)  int main() {
     int x1, x2, a, b, i;
     printf("Enter a number");
     scanf("%d %d", &a, &b);
     if (a > b)
     {
         x1 = b;
         x2 = a;
     }
     else {
         x1 = a;
         x2 = b; }
         for (x1; x1 <= x2; x1++)
         for (i = 2; i < x1; i++) {
             if (x1 % i == 0) {
                 if (x1 == i)
                 printf("%d ", x1);
                 break; } }
         return 0; }

(8)  int main() {
     int x1, i;
     printf("Enter a number");
     scanf("%d", &x1);
         x1++;
         for (x1; ; x1++) {
             for (i = 2; i < x1; i++) {
                 if (x1 % i == 0)
                 break; }
                 if (x1 == i) {
                 printf("%d", x1);
                 break; } }
                 return 0; }
```

```c
int main() {
    int x, i, sum = 1, y, count = 0, a, z, j = 1, s = 0;
    printf("Enter a number");
    scanf("%d", &x);
    y = x;
    z = x;
    while(x)
    {
        x = x/10;
        count++;
    }
    printf("count = %d", count);
    for(j = 1; j <= count; j++)
    {
        a = y%10;
        j = 1
        printf("\n a = %d", a);
        while(j <= count)
        {
            sum = sum*a;
            j++;
        }
        s = s + sum;
        sum = 1;
        y = y/10;
    }
    if(s == z)
        printf("armstrong");
    else printf("Not armstrong");
    return 0;
}
```

```c
10.  int main()
     {
         int s, x, count = 0, p = 1, q, coun2, sum = 0;
         for (x = 1; x < = 1000; x++)
         {
             p = 1;
             sum = 0;
             count = 0;
             s = x;
             while (s)
             {
                 count++;
                 s = s/10;
             }
             s = x;
             count 2 = count;
             for (s; s> = 1; )
             {
                 count = count 2;
                 a = s % 10;
                 s = s/10;
                 while (count)
                 {
                     p = p*a;
                     count --;
                 }
                 sum = sum + p;
                 p = 1;
             }
             if (sum == x)
                 printf ("%d \n", sum); }
         }
     }
```