Problem Set-1

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5. Fibonacci Number

```
#include <stdio.h>
int main(){
int n;
printf("Enter a Number: ");
scanf("%d", &n);
int F[n +1];
F[0] = 0;
F[1] = 1;
int i;
for( i = 2; i <= n; i++)
F[ i ] = F[ i - 2 ] + F[ i - 1 ];

printf("Fibonacci number:
%d\n",F[n]);
return 0;
}
```

6. Last Fibonacci Number

```
#include <stdio.h>
int main(){
int n;
printf("Enter a Number: ");
scanf("%d", &n);
int F[n +
1]; F[0] =0;
F[1] = 1;
int i;
for( i = 2; i <= n; i++)
F[ i ] = F[ i - 2 ] + F[ i - 1 ];

printf("Fibonacci number: %d\n",
F[n]);
return 0;
}
```

7. GCD

```
#include <stdio.h>

    int get_fibonacci_last_digit(long long n) {
    int first = 0;
    int second = 1;

    int
    res;
    int i;

    for (i = 2; i <= n; i++) {
        res = (first + second) % 10;
        first = second;
        second = res;
    }
    return res;
}
int main()
    { int n;
    scanf("%d",&n);
    int c = get_fibonacci_last_digit(n);
    printf("Last Number: %d",c);

    return 0;
}
```

8. LCM

```
#include <stdio.h>
int main() {
    int n1, n2, min;
    printf("Enter two positive integers:
    "); scanf("%d %d", &n1, &n2);

    min = (n1 > n2) ? n1 : n2;

    while (1) {
        if (min % n1 == 0 && min % n2 == 0) {
            printf("The LCM of %d and %d is %d.", n1, n2, min);
            break;
        }
        ++min;
    }
    return 0;
}
```