

# lab3

Date:24/09/2025

// Q.24

```
#include <stdio.h>
```

```
int main()
```

```
{ float y, x, c = 1;
```

```
int n;
```

```
printf("y=1+x\t\t; n=1\n");
```

```
printf("y=1+x/n\t\t; n=2\n");
```

```
printf("y=1+(x^n)\t; n=3\n");
```

```
printf("y=1+nx\t\t; n>3 or n<1\n");
```

```
printf("enter value of n=");
```

```
scanf("%d", &n);
```

```
printf("enter value of x=");
```

```
scanf("%f", &x);
```

```
switch (n)
```

```
{ case 1:
```

```
    y = 1 + x;
```

```
    printf("y=1+mf=fn", x, y);
```

```
    break;
```

```
case 2:
```

```
    y = 1 + (x / n);
```

```
    printf("y=1+mf/%d=fn", x, n, y);
```

```
    break;
```

```
case 3:
```

```
    for (int i = 1; i <= n; i++)
```

```
    {
```

```
        c = (c * x);
```

```
    }
```

```
    y = 1 + c;
```

```
printf("y=1+%.f=%.f\n", x, y);
```

```
break;
```

```
default:
```

```
y = 1 + (n * x);
```

```
printf("y=1+%d*%.f=%.f\n", n, x, y);
```

```
}
```

```
return 0;
```

```
}
```

C 24\_composite\_function.c > main()

```
3 #include <stdio.h>
4 int main()
5 {
6     float y, x, c = 1;
7     int n;
8     printf("y=1+x\t\t; n=1\n");
9     printf("y=1+x/n\t\t; n=2\n");
10    printf("y=1+(x^n)\t\t; n=3\n");
11    printf("y=1+nx\t\t; n>3 or n<1\n");
12    printf("enter value of n=");
13    scanf("%d", &n);
14    printf("enter value of x=");
15    scanf("%f", &x);
16    switch (n)
17    {
18    case 1:
19        y = 1 + x;
20        printf("y=1+%.f=%.f\n", x, y);
21        break;
22    case 2:
23        y = 1 + (x / n);
24
25        printf("y=1+%.f/%d=%.f\n", x, n, y);
26        break;
27    case 3:
28        for (int i = 1; i <= n; i++)
29        {
30            c = (c * x);
31        }
32        y = 1 + c;
33
34        printf("y=1+%.f=%.f\n", x, y);
35        break;
36    default:
37        y = 1 + (n * x);
38        printf("y=1+%d*%.f=%.f\n", n, x, y);
39    }
40
41    return 0;
42 }
```

```
PS C:\Users\Sumit\Desktop\vscode\clg> cd "c
rFile.c -o tempCodeRunnerFile } ; if ($?) {
y=1+x          ; n=1
y=1+x/n        ; n=2
y=1+(x^n)      ; n=3
y=1+nx         ; n>3 or n<1
enter value of n=5
enter value of x=8
y=1+5*8.000000=41.000000
PS C:\Users\Sumit\Desktop\vscode\clg>
```