|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| main | | | | | | | | | | | | | | | | |
| f | | | | | | | t | | | | | | | | | |
| f | | | | | N=2 | | f | | | | N=720 | | | | | |
| f | | | N=2 | | N\*f | | f | N=6 | | | (N%10)+t(N/10) | | | | | |
| N=2 | | | N\*f | | N=1 | | N=3 | N\*f | | | t | | | | | 720%10+9 |
| N\*f | |  | N=1 | | N\*f | | N\*f | N=5 | | | N=72 | | | | | 9 |
| N=1 | |  | N\*f | | n=0 | | N=2 | N\*f | | | (N%10)+t(N/10) | | | | |  |
| N\*f | |  | n=0 | | 1 | | N\*f | N=4 | | | t | | | | 72%10+7 |  |
| n=0 | |  | 1 | |  | | N=1 | N\*f | | | N=7 | | | | 9 |  |
| 1 | |  |  | |  | | N\*f | N=3 | | | (N%10)+t(N/10) | | | |  |  |
|  | |  |  | |  | | N=0 | N\*f | | | t | | (7%10) | |  |  |
|  | |  |  | |  | | 1 | N=2 | | | N=0 | | 7 | |  |  |
|  | |  |  | |  | |  | N\*f | | | 0 | |  | |  |  |
|  | |  |  | |  | |  | N=1 | | |  | |  | |  |  |
|  | |  |  | |  | |  | N\*f | | |  | |  | |  |  |
|  | |  |  | |  | |  | N=0 | | |  | |  | |  |  |
|  | |  |  | |  | |  | 1 | | |  | |  | |  |  |
|  | | | | | | | | | | | | | | | | |
| t | | | | | | | | | | | | | | | | |
| N=90 | | | | | | | | | | | | | | | | |
| N=93 | | | | | | | | | | | | | | | | |
| T(N+t(n)) | | | | | | | | | | | | | | | | |
| t | | | | | | 93+12 | | | N=105 | | | | | | | |
| N=93 | | | | | | 105 | | | (n%10)+t(n/10) | | | | | | | |
| (n%10)+t(n/10) | | | | | |  | | | t | | | | | 6 | | |
| t | | | | 93%10+9 | |  | | | N=10 | | | | |  | | |
| N=9 | | | | 12 | |  | | | (n%10)+t(n/10) | | | | |  | | |
| (n%10)+t(n/10) | | | |  | |  | | | t | | | 1 | |  | | |
| t | 9 | | |  | |  | | | N=1 | | |  | |  | | |
| N=0 |  | | |  | |  | | | (n%10)+t(n/10) | | |  | |  | | |
| 0 |  | | |  | |  | | | t | 1 | |  | |  | | |
|  |  | | |  | |  | | | N=0 |  | |  | |  | | |
|  |  | | |  | |  | | | 0 |  | |  | |  | | |

א)הפונקציה f מבצעת n עצרת

ב)הפונקציה t מחזירה את סכום הספרות של המספר

ג) Print

2

9

6

int f(int n) {

return n > 0 ? n\*f(n - 1) : 1;//עצרת

}

int t(int n) {

return n > 0 ? (n % 10) + t(n / 10) : 0;//sum of digits

}

int main()

{

int n = 2, a;

n = f(f(f(n)));

printf("%d \n", n);

n++;

n = t(f(f(n)));

printf("%d \n", n);

n \*= 10;

n += 3;

n = t(n + t(n));

printf("%d \n", n);

return 0;

}