main().
{ pritf ("Xx How many numbers ");
scanf. ("%.d", & n);   S=0, i=1 $\cancel{0}$
while (1) — The loop runs -1
                          for ever
        S=S+i;
        i++;
        If (cond) — (i > n) ①
            break; $\widehat{i==n}$ ②
        }   i <= n
    }

$\overline{\qquad}$

(loop)

$$S = 1 + 2 + 3 + 4 + 5 \text{ upto n}$$
$$\downarrow \quad ① \qquad\qquad\qquad \text{term}$$
$$\quad i$$

n=5

i	1	2	3.	4	5	6 .
S	0	1	3	6	10	15 = (5)

-1	10	1
0	0+1	-1

i	-1	0	1	2	3	4	5
S	0	0	1	3	6	10	15

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

    S = 0    i = 2/n. 2n+1
    while (1)
    {
        i -- ;
        S=S+i;
        S = S+i-n; i--;
        if (i < n).
            break;
    }
}
```

i	10	9	8	7	6.	5	4
S	0	5	9	12	14	15	15

i	11	10	9	8	7	6	5.	4
S	0	5	9	12	14	15	15	14

$$S' \quad 1 + 2 + 4 + 7 + 11$$
$$i \quad 1 + 2 + 3 + 4 + \cdots ,$$
$$S. \quad 1 + 3 + 6 + 10.$$
$$j = \sum S_i \quad j = 25!$$
$$\nearrow n \quad \quad i = 0, \quad j = 0 , \quad S = 0$$

$$\text{while} (i <= n).$$

$$\{$$
$$\qquad i++;$$
$$\qquad S = S + i$$
$$\qquad j = j + S,$$

$$\qquad\qquad\qquad i \quad S \quad j$$
$$\qquad\qquad\qquad i \quad (0,1,1) \quad (-1,1,0)$$
$$\qquad\qquad\qquad i \quad (0,1,1) \quad (-1,0,$$

$$n = 5$$

$$S' - 1 + 2 + 4 + 7 + 11$$

i	-1	0	1	2	3	4	5
s	1	1	2	4	7	11	16
j	0	1	3	7	14	25	41

$$\}$$

i	0	1	2	3	4	5
S	0 1	1 2	2 4	7	11	16
S	0 1	1 3	4 7	14	25	41

$$(0,1,$$
$$j = 1$$
$$j = -(1 + \frac{n(n+1)}{2}$$
$$= -\frac{n(n+1)}{2}$$

$$S \quad 1 + 2 + 4 + 7 + 11 \ldots \quad j = 41 \quad n^{th} \text{ term}$$

$$n^{th} = 1 + \frac{n(n-1)}{2}$$

$S = 0 \qquad i = \cancel{2n.} 1$

while $(\cancel{i > n})$ $(i <= n)$
{
$\qquad S = S + i - n.; \qquad S = S + i;$
$\qquad\qquad i - -; \qquad\qquad\qquad i + +;$

}.

$S = 1 + 2 + 3 + 4 + 5$
$S = \quad 1 + 3 + 6 + 10 + 15$
$\qquad\qquad\qquad - $ upto n terms.

ARMSTRONG NUMBER.

$$153 \rightarrow 1^3 + 5^3 + 3^3$$

$\downarrow$

$153 \rightarrow 1/5/3$

$n = 153$, $S = 0$, $ndash = n$;

while $(n > 0)$

$\{ K = n \% 10;$

$n = n / 10;$

$S = S + K*K*K.$

$\downarrow$ if $(S == ndash)$,

print ("ARMSTRONG NO").

K	x	3	5	1
n	153	15	1	0
S	0	27	152	153

Compute GCD   (B)   A
                36, 45
A = 45, B = 36 A%B 3.6
while (A%B) > 0.
{
    C = A%B ;
    A = B;
    B = C ;

}
printf ("%d", B) ;

}
_____

Giving input
→ 5   55   25.1 / 77.1   2   0
   MAX = 77.1
→