

$$\begin{array}{r} 2 \\ 3 \overline{)6} \\ \underline{6} \\ 0 \end{array} \quad \begin{array}{r} 0 \\ 3 \overline{)9} \\ \underline{9} \\ 0 \end{array} \quad \begin{array}{r} 5 \\ 3 \overline{)15} \\ \underline{15} \\ 0 \end{array}$$

3 is a factor of 6
but, 6 is not a factor of 3

$$\begin{array}{r} 0 \\ 10 \overline{)20} \\ \underline{20} \\ 0 \end{array}$$

divisor vs factor:
divisor: 2, 5, 10
factor: 2, 5, 10

$$\begin{array}{r} 5 \\ 2 \overline{)10} \\ \underline{10} \\ 0 \end{array} \quad \begin{array}{r} 0 \\ 10 \overline{)20} \\ \underline{20} \\ 0 \end{array}$$

All factors, odd divisor, but not all divisors are factors.

Q1. Take n inputs from user and print them.

n = 5
100 100
92 92
102 102
1 1
6 6

Q. Num: 459213
o/p: 9

Num: 12483
o/p: 8

n1 = 2 n2 = 10 n3 = 5 n4 = 11
o/p: 2 is a factor. w/p: Not a factor.

if (N_a > N_b + N_c || N_b > N_a + N_c || N_c > N_a + N_b) {
 sat (y[i]);
} else {
 sat (no);
}

CODECHEF:

```
int Na = s.nextInt();
int Nb = s.nextInt();
int Nc = s.nextInt();
```

In the medical age, there were 3 hospitals A, B, and C. The array of these hospitals has N_a, N_b, and N_c patients respectively.
You are given that an array with X patients can be defined an array with Y patients only if X > Y.
An array is defined to be dominant if it can contain both the other arrays combined. For example, hospital C's array will be dominant only if N_c > N_a + N_b.
Determine whether any of the arrays is dominant or not.

A → N_a
B → N_b
C → N_c

N_a = 9
N_b = 40
N_c = 60

YES ✓
NO

```
int A = Na + Nb;
int B = Na + Nc;
int C = Nb + Nc;
if (Na > C) {
    sat (yes);
} else if (Nb > B) {
    sat (yes);
} else if (Nc > A) {
    sat (yes);
} else {
    sat (no);
}
```

Chief is watching TV. The current volume of the TV is X. Pressing the volume up button of the TV remote increases the volume by 1. Pressing the volume down button decreases the volume by 1. Chief wants to change the volume from X to Y. Find the minimum number of button presses required to do so.

if p.

X = 30
Y = 40

X = 40
Y = 30

X = 30
Y = 30

ans = 0

```
int x = s.nextInt(); int y = s.nextInt();
int ans = 0;
if (x > y) {
    ans = x - y;
} else if (y > x) {
    ans = y - x;
}
sat (ans);
```