

Security Functions



Before we jump into security concepts, let us familiarize ourselves with the mathematical background required for it.

Set X is a collection of elements. Here, $X = \{1, 2, 3\}$ is one such example. A collection of integers is also a set.

Given two sets, X and Y , we define a function f that maps every element in X to precisely 1 element in Y .

If $X = \{1, 2, 3\}$ and $Y = \{\alpha, \beta, \gamma, \delta\}$, the function f will return:

$$f(1) = \alpha, f(2) = \gamma \text{ and } f(3) = \delta.$$

Let us define a function $f_1(x) = x_r$, where $x \in X$ and $x_r \in Y$.

Here, x_r is defined as the remainder of x when divided by 11.

Your task is to complete the function that takes the input x and **returns** x_r .

Constraints

$$1 \leq x \leq 1000$$