

## Problem Statement

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

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

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

if  $X = \{1, 2, 3\}$  and  $Y = \{\alpha, \beta, \gamma, \delta\}$  a function  $f$  can be

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

Let us define a function  $f_1(x) = x_r$ , such that  $x \in X$  and  $x_r \in Y$  where  $x_r$  is defined as the remainder of  $x$  when divided by 11.

Your task is to complete the function which takes the input  $x$  and **returns**  $x_r$

## Constraints

$1 \leq x \leq 1000$