**Java Datatypes**

import java.util.Scanner;

public class student {

public static void main(String aegs[]) {

Scanner s1=new Scanner(System.in);

int n=s1.nextInt();

long cc=0;

for(int i=0;i<n;i++)

{

try

{

long x=s1.nextLong();

System.out.println(x+" can be fitted in:");

if(x>=-128 && x<=127)System.out.println("\* byte");

//Complete the code

if(x >= -Math.pow(2, 15) && x <= Math.pow(2, 15) - 1)

System.out.println("\* short");

if(x >= -Math.pow(2, 31) && x <= Math.pow(2, 31) - 1)

System.out.println("\* int");

if(x >= -Math.pow(2, 63) && x <= Math.pow(2, 63) - 1)

System.out.println("\* long");

}

catch(Exception e)

{

System.out.println(s1.next()+" can't be fitted anywhere.");

}

}

}

}