Potencias de Dos

|  |  |  |  |
| --- | --- | --- | --- |
| Puntos |  | Límite de memoria | 128MB |
| Límite de tiempo (caso) | 1s | Límite de tiempo (total) | 60s |

Dado un entero NN (0≤N≤2650≤N≤265), imprima exactamente el valor de 2 a la NN-ésima potencia (sin ceros a la izquierda o espacios, por supuesto).

**Entrada**

En la primera línea el entero NN

**Salida**

Una sola línea que contiene 2 a la NN-ésima potencia.

**Ejemplo**

| **Entrada** | **Salida** |
| --- | --- |
| 100 | 1267650600228229401496703205376 |

**Consideraciones**

* 0≤N≤2650≤N≤265

*Fuente: OMI Training Gate*

Problema subido por: [luison.cpp](https://omegaup.com/profile/luison.cpp/)

| **ID** | **Status** | **Porcentaje** | **Penalty** | **Lenguaje** | **Memoria** | **Tiempo** | **Detalles** |
| --- | --- | --- | --- | --- | --- | --- | --- |
| [Nuevo envío](https://omegaup.com/arena/problem/ptwo#problems/new-run) | | | | | | | | |
| 29121490 | Respuesta correcta | 100.00% | 0 | java | 19.25 | 2.77 |  |  |
| **Envíos** | | | | | | | |

<https://omegaup.com/arena/problem/ptwo#problems>

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\* and open the template in the editor.

\*/

package javaapplication98;

import java.util.Scanner;

/\*\*

\*

\* @author Administrador

\*/

public class JavaApplication98 {

static String multiplicar(String a, String b)

{

StringBuffer C = new StringBuffer();

int next = 0;

for (int k = 0; k < a.length() + b.length() - 1; k++)

{

int cur = next;

int i, j;

if (k < a.length())

{

i = a.length() - 1 - k;

j = b.length() - 1;

}

else

{

i = 0;

j = a.length() + b.length() - 2 - k;

}

while (i < a.length() && j >= 0)

{

cur += Integer.parseInt( String.valueOf(a.charAt(i)))

\* Integer.parseInt(String.valueOf(b.charAt(j)) );

i++;

j--;

}

C = C.insert(0, String.valueOf(cur % 10));

next = cur / 10;

}

if (next > 0)

{

C = C.insert(0,String.valueOf( next));

}

return C.toString();

}

static String elevar(int N) {

String prod = "1";

for(int i = 0; i < N; i++) {

prod = multiplicar(prod, "2");

}

return prod;

}

public static void main(String[] args) {

// TODO code application logic here

Scanner sc = new Scanner(System.in);

int N;

N = Integer.parseInt(sc.nextLine());

String res = elevar(N);

System.out.println(res);

}

}