

```

/*
 *      A program which checks whether the number entered is a perfect number.
 *
 *      A number is perfect if it is equal to the sum of all of its factors
 *      (excluding itself).
 *
 *      Example :
 *          6 = 1 * 2 * 3
 *              ^-----^ 1 + 2 + 3 = 6      --->    Perfect!
 *
 *          28 = 1 * 2 * 4 * 7 * 14
 *              ^-----^ 1 + 2 + 4 + 7 + 14 = 28      --->    Perfect!
 */

import java.util.Scanner;

class Perfect {
    public static void main (String[] args) {
        System.out.print("Enter a number : ");
        int number = (new Scanner(System.in)).nextInt();
        int sumOfFactors = 0;
        for (int factor = 1; factor < number; factor++)
            sumOfFactors += ((number % factor) == 0)? factor : 0;
        System.out.println((number == sumOfFactors)
                           ? "Perfect number!" : "Not a Perfect number!");
    }
}

/*
 *      Variable Description :
 *
 *      -----
 *      Serial no. | Variable name | Data type | Purpose
 *      ~~~~~
 *      1          | number       | int       | Stores the number
 *              |              |           | entered
 *      -----+-----+-----+-----
 *      2          | sumOfFactors | int       | Stores the sum of
 *              |              |           | the factors of (number)
 *      -----+-----+-----+-----
 *      3          | factor       | int       | Stores each possible
 *              |              |           | factor of (number)
 *      ~~~~~
 */

```