**CSE 102 – LAB – MIDTERM MOCK TEST**

**Question 1: Find the largest odd divisor of a positive integer.**

Given a positive integer N (1< N <= 109). Write a program to find the largest odd divisor of N (less than N).

**Input:** Positive integer

**Output:** An Odd integer, less than and greatest divisor of N.

**Example:**

|  |  |
| --- | --- |
| **Input** | **Output** |
| 10 | 5 |
| 105 | 35 |

**Question 2: Electricity bill**

There are 2 types of initial electricity prices:

* Households 20 cents/Kw
* Business households: 10 cents/Kw

Write a program to calculate electricity bill as follows:

* If the number of Kw consumed <=100, the electricity price is the initial price;
* Over 100 Kw, every time it exceeds 100 Kw, the electricity price will increase by 10% from the initial price. However, the maximum electricity price is 150% of the initial price.

**Input:** 2 positive integers separated by spaces are the *price type* and the *number of Kw* of electricity consumed. *Price types* are specified as follows: 1: household; 2: is a business household.

**Output:** the total money must pay.

**Example:**

|  |  |  |
| --- | --- | --- |
|  | **Input** | **Output** |
| **Example 1** | 1 550 | 13500 |
| **Example 2** | 2 850 | 11250 |