**100 Doors**

**Overview:**

There are 100 doors in a row that are initially closed. You make 100 passes by the row of doors. The first time through, visit every door and toggle the door (if the door is closed, open it; if it’s open close it). The second time through, only visit every second door (door #2, #4, #6, …) and toggle it. The third time through, only visit every third door (door #3, #6, #9, …) etc, until you only visit the 100th door.

**Task:**

Write a program to complete this task and answer the following question. What state are the doors in after the last pass? Which are open, which are closed?

**Answer:**

Opened doors: 1, 4, 9, 16, 25, 36, 49, 64, 81, 100