The Locker Room

At Halifax West High School there are 1000 students and 1000 lockers, numbered from 1 to 1000. All the lockers are closed.

On the first day of school, these Haligonians decide to do something very EVIL. They conspire to create a strange situation:

The first student goes along the row and opens every locker whose number is a multiple of 1 (i.e., every locker).

The second student then goes along and closes every locker whose number is a multiple of 2.

The third student changes the state of every locker whose number is a multiple of 3. (If the locker is open she closes it, and if the locker is closed, she opens it).

The fourth student changes the state of every locker whose number is a multiple of 4.

The fifth student changes the state of every locker whose number is a multiple of 5.

This process continues until all one thousand students have taken part in this strange activity.

When all the students have completed their prank, a bunch of lockers will be open, and a bunch of lockers will be closed. How many lockers will be open, and *which* lockers will they be?