The Locker Game Problem

At Henry G. Izatt there are 100 grade 6 lockers and 100 grade 6

students. At the beginning of the school year, all of the lockers

are closed and all of the students arrive to play the locker

game. The students are lined up in a big long line.

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The first student walks past all of the lockers and opens

every single one.

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Then the second student walks by all of the lockers and

changes every second one.

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Then the third student walks by and changes every third

locker. Then the fourth person goes past

and changes

every fourth locker.

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The fifth person changes every fifth locker.

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Following this pattern, all 100 students go through the

lockers.

Which locker doors are open after all 100 students have done

this? \*\*\* Why do these lockers end up being open????