The 20 students in Mr. Wolf's 4th grade class are playing a game in a hallway that is lined with 20 lockers in a row.

- The first student starts with the first locker and goes down the hallway and opens all the lockers.
- The second student starts with the second locker and goes down the hallway and shuts every other locker.
- The third student stops at every third locker and opens the locker if it is closed or closes the locker if it is open.
- The fourth student stops at every fourth locker and opens the locker if it is closed or closes the locker if it is open.

This process continues until all 20 students in the class have passed through the hallway.

a. Which lockers are still open at the end of the game? Explain your reasoning.

b. Which lockers were touched by only two students? Explain your reasoning.

c. Which lockers were touched by only three students? Explain your reasoning.

d. Which lockers were touched the most?