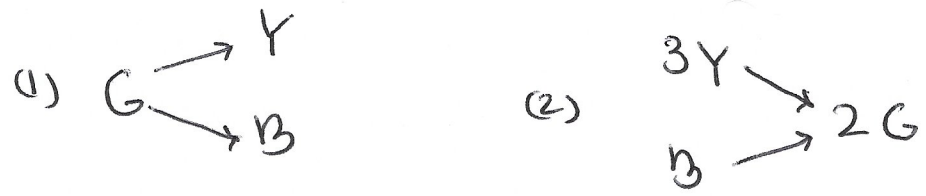
Refer to green bacteria as G, blue as B, yellow as Y.

Division processes:



We start with 5G, 7Y, 3B and end with 8G, 2Y, 3B. Notice how the number of blue stay the same. The only way this can happen is if process (1) is done as many times as process (2).

Doing process (1) and (2) both once, we can see that the number of greens increased by 1. Since the greens increased by $8-5=3$ from start to end, process (1) and (2) must each be repeated 3 times. This gives 8G, 1Y, 3B, which is 1 off from the end result.

Thus, the experiment must have been tampered with.