Homework 1

1. There will be 3 situations while only 2 beans left, 2 white beans, 2 blank beans and 1 black and 1 while beans. At the case that 2 black beans left, there will be limitless black beans, the game will not stop. When it comes to the situation of 2 white beans, a black bean will be added then it will come to the case of 2 white or 2 while and 2 black beans, the game will not stop. Last, while a black bean and a white bean left, the game will stop with a white bean. So, in some cases, the game will stop.
2. Since only black beans will be put in or throw away in this game and the game will not stop with 2 white beans, so only in the combinations of (n, m) where the m equal to 1, the last one must be a white bean, and only in these cases the game has the possibility to stop.

Homework2

Homework3

1. Correct
2. Incorrect
3. Correct
4. Correct