

Game Challenge: Flag Capture Tournament

You have been selected to represent your school in a capture the flag tournament competing against a neighboring district. The objective is simple; the first school that captures 10 of the enemy's flags will win. Both teams have enlisted 150 of their best students in this competition. It is up to you to figure out how to properly manage this group and lead your team to victory.

The competition will be held in rounds. During each round, both schools will send some number of their total students to attack the opposing flag. The team that sends the larger number of students will win the round, and they will capture 1 enemy flag. As an added bonus, the winning team will capture all of the students the losing team sent during that round. This will decrease the number of students the losing team can send in future rounds.

Furthermore, each team will also dedicate a certain number of students to defend for that round. Defending an attack successfully will not yield an additional flag for that round, but it will still cause the opposing students to be captured. You will have to balance both your attacking and defending units.

If you find yourself running low on students, you can choose to spend 1 round freeing them; although doing so will leave your flag unguarded. Choosing to free your students will give you back half of the students that have been captured.

In addition, both teams have enlisted the help of 5 of their school's star capture the flag players in past competitions. Just one of these senior players, when sent offensively during a round, will single handedly capture the enemy's flag and all of the troops that were left defending it. If one is used defensively, they can prevent all opposing troops from taking a flag, in addition to capturing every single enemy unit. However, both teams can only use these seniors once each. After they've sent 5 seniors, they cannot send any more.

Also, you may choose to abstain from attacking or defending (or both) and reinforce the total number of units you have for future turns. Reinforcing will add 10 outside students to your total pool of students.

In the case of ties, both teams will not lose any students, and neither team will capture a flag. If both teams use a senior at the same time, then they will both lose that senior, and neither will gain any bonuses for the round.

Making a Java Bot

Send the following Strings to System.out in order to trigger a command:

free which will add half of the total number of captured students to your total

attack;x;defend;y where x and y can be any of the following:

1. The number of units you are sending to attack (x) and defend (y)
2. The word “reinforce”, which will add students to your total student pool. When reinforcing, you are treated as sending 0 attacking units (for x) or 0 defending units (for y).
3. The word “senior”, which will send a senior to attack (x) or defend (y).

Failure to structure your commands with the proper format and capitalization will confuse your troops, causing you to send 0 students for the round and giving your opponent a free turn.