

Traffic Jam – Class Handout

With two teams of four facing each other on the game board, the game is completed when the teams trade places on the game board using these rules.

Only one person, from either team, may move at any time. Teams do not need to alternate moves.

You must remain on a circle or move to an open circle. Only one person on a circle at a time.

You may not jump members of your own team.

You may only jump one person at a time.

You may not move backwards. If you are stuck (in a traffic jam) you must reset the game.

1. Using sentences, diagrams, pictures, etc., summarize the solution to Traffic Jam.

2. Write a pattern of movements that can be used to represent the movements in Traffic Jam for four people on each team. (A pattern is something like ABABABBABB... where “A” represents movement from Team A and “B” represents movement from Team B.)

3. Extend your pattern of movements to one that works for five people on each team.

4. Consider the game board below. Determine the next successful move and use a proof by contradiction to justify it. *Hint: You may assume that two members of the same team residing on consecutive circles that are not their original circles will create a traffic jam.*

