

Our project is about the game of dominoes all fives. More specifically, the project we are working on is going to figure out what the best strategy is to win. Dominoes all fives is just like regular dominoes but the only thing that is really different is that you can only score in increments of fives (Rubl). Just like in regular dominoes there is a bone pile where if you are unable to play any of the dominoes in your hand you must pick one up to be able to play your turn (DominoRules.com). In the game there are two main ways a player can choose to play. The first strategy of the two is to play for points with their main objective being to score without worrying about what dominoes the other player is putting down (Yates). The second strategy is to strictly play to block your opponent to stop them from scoring any points or have them score the least amount of points as possible during the rounds played (Yates).

We are currently using NetLogo to code our project which a majority of it is in the scala programming language (Northwestern.edu). We have made some progress like making the dominoes by utilizing the “turtles” and putting numbers on them. Currently the two players are taking turns and drawing dominoes whenever they cannot play any of the dominoes that are currently in their hand. There is also a counter for points that has been set up that tracks the amount of points on the North, East, South, and West sides of the domino board. Having the player actually doing their designated tasks like blocking and scoring is still being worked on to make it the best we possibly can and the most time efficient. The main goal is to be able to play as many domino games as possible on the program in the least amount of time possible to get the results quickly.

In our results we are assuming that the strategy of just playing for points will be more efficient. This is because if Player Two (Blocker) is just playing to block Player One (Scorer) then Player Two has to rely on pure chance to score. Also, while Player Two is blocking more

chances appear for Player One to score while Player Two still has no guarantee to score. Playing with a blocking strategy also can be a negative for Player Two if Player One can set up a situation in which no matter what Player Two does then Player One will score which is not an impossible task after enough time played. Although if player two does get to block player 1 from playing completely and they run out of dominoes they will get all of the opponents points from their hand rounded to the nearest multiple of five. This means that player two does also have a chance to win the game even if the scorer does manage to score a lot of points prior to player two completely blocking him off.

#### Works Cited

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