

10/1/13

5/5

Proof

Conjectures:

- 1) Clips will always win, with a four by four checker board Box, when the pennies are on opposite color spaces.
- 2) Pennies will win, with a four by four checker board box, when pennies are on same color spaces.

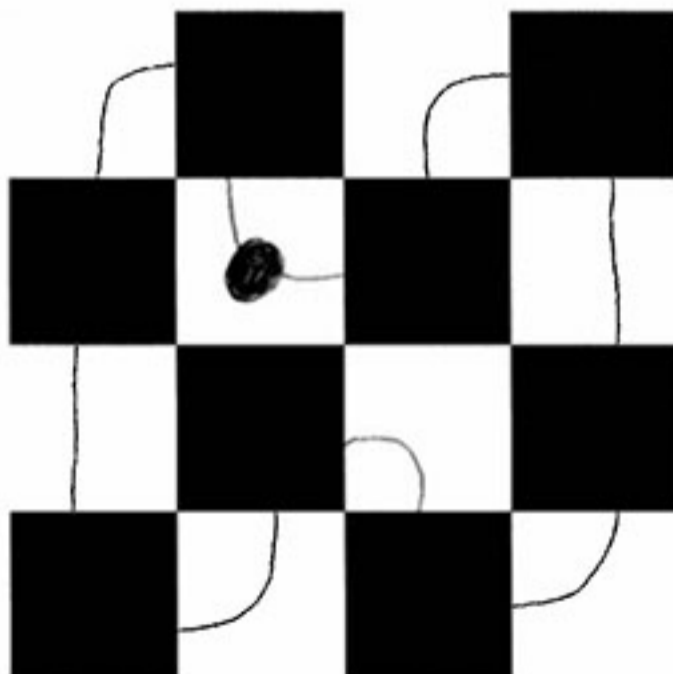
Proofs:

1) Pennies are on opposite colors. Figure one shows a Hamiltonian path .Clips will fit perfectly along the Hamiltonian path between the squares. Because pennies are on opposite colors there will be an even number of spaces left for clips to fill. So clips will fit perfectly along the path. *Nick.*

2) Because pennies are on the same color spaces 6 spaces of one color and 8 of another will be uncovered. This is uneven. Each paperclip covers one white and one black square. If you keep going with paperclips, two spaces which are the opposite color of the squares the pennies are on will remain uncovered. So a penny wins. *Perfect.*

EX:

1)



EX:

2)

