

Explorations in Modern Math

12:05

Quiz 1

In the (original) Pennies and Paperclips game, if the pennies are placed in the same colored squares, then Penny will win.

Proof: The board consists of 16 tiles, 8 black, 8 white, alternating in color. I know that a paper clip will take up a black square and a white square. Instead of looking at the squares as separate, I looked at a black and a white square as 1 unit. That means on the board there are 8 units. I only had 7 paperclips, so if all 7 would fit, I would have 1 unit left over: A black and a white square. Therefore, for all 7 paperclips to fit, I had to put the pennies on different colored tiles.