Math Circle Explorations: Session 2
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Problem 6.   Consider the vacillating mathematician problem above. Now suppose after walking α fraction of the distance from her home to the university, she tosses a biased coin with probability of heads " p. If she gets a heads, she continues to walk towards the university but if she gets a tail she decides to walk back towards her home. After walking α fraction of the distance between her current position and the destination, she again flips a coin and either continues in the same direction or goes in the opposite direction, and so on.