

Here are some homework problems, based upon the filmstrip we watched.

Problem 1. *A rook starts at the lower left corner of a chessboard. How many paths are there that will take it to the upper right corner? Assume that the rook only moves up and to the right, never down nor to the left.*

Problem 2. *You are participating in an experiment. There are three closed boxes on a table. One contains two nickels, one contains two dimes, and one contains a nickel and a dime. The boxes are labelled 10 cents, 15 cents, and 20 cents. You are told that all the labels are incorrect. You are asked to determine the contents of all the boxes. The experimenter is willing to draw one coin out of a box of your choice and show it to you. Can you then be sure of correctly identifying the boxes? If so, why, and which box do you choose to have the coin drawn out of?*