Step 8 It is likely that the initial coyote did not land on the required number of mice needed to survive. If so, again drop a coyote on the square to represent a new animal migrating into the area looking to take advantage of a resource.

Step 9 Record your data for the second generation, based on the number of surviving mice and coyotes. Once more, if the coyote does not land on the required number of mice, start generation 3 with one coyote.

Step 10 Double the surviving mice and repeat. If the coyote lands on the necessary number of mice, it reproduces and yields one or more offspring for the next generation.

Step 11 Repeat this process for at least 15 iterations to see if you have a predictable pattern developing. If your data seem chaotic, rethink your conditions, make parameter adjustments here, and continue.

Step 12 As the coyote numbers increase, remove the mice eaten by each coyote in that generation. (As one coyote eats mice it is harder for the following animals to hunt successfully. In this way the simulation also models the effectiveness of superior hunters and nature's weeding out the less efficient.) Record the total population of each at the end of the generation.

Step 13 When your model seems to be producing a cyclical pattern, complete 25 iterations and graph the data.