EE422C_Critters

We created 4 new critter classes that extend critter.

In each new Critter class there is an over-ridden doTimeStep() method that will perform the
specialized steps for each critter during one time step.
There is a fight function to determine how each critter will act in an encounter based on the
opponent type and energy.
There is an over-ridden toString() method that prints the character designated for the critter
There is a runStats() method that prints out the specific stats for each critter.

Critter1 has four additional fields. The Boolean ran accounts for if the critter has moved or not to determine if the critter will fight. Integers numRuns, numWalks and numFights keep track of the number of runs, walks and fights that all Critter1s have.

Critter2 has 3 additional fields. The age field is used to keep track of each creatures age. The age is increased at every time step. Integers numFights and numWalks keep track of the number of fights and walks for all Critter2s.

Critter3 has 5 additional fields. The encounters field keeps track of all the fights that all Critter3s have. The running field keeps track of the number of runs made by all Critter3s. The reproduced field keeps track of all the babies reproduced. The left and right fields keep track of all the moves that moved Critter3s right and left respectively.

Critter4 has 5 additional fields. The Boolean hasMoved field keeps track if Critter4 has moved or not to determine if the critter will fight. Encounters keep track of the number of encounters that all Critter4s have. The Integers walking, running and staying keep track how many times Critter4s walk, run or stay in order to calculate percentages for the statistics.

To hold all of our critter we put all of the critters in an array list of Critters labeled
population.