Using AgentSheets, make a mosquito simulation with the following rules.

- You should have 4 different agents (not 1 agent with 4 different depictions):
  1. Mosquito (1 depiction)
  2. Human (2 depictions: live and dead)
  3. Bat (1 depiction)
  4. Floor tiles (1 depiction – white square with black border, just like in class)

- Don’t spend a lot of time on the depictions! If you want to make the depictions M, H, and B (in different colors) or different color squares rather than nice pictures, that’s fine.

- Bats:
  - Move quickly (move every turn – aka 100% probability).
  - If next to mosquito, remove the mosquito (eaten – ha ha).

- Humans:
  - If not dead:
    - Move slowly (move every other turn – aka 50% probability).
    - If bitten by mosquito, change to a new depiction (dead human).
    - If next to mosquito, 10% of the time the human kills the mosquito (remove the mosquito)
  - If dead
    - Sit there and take up space (dead depiction, don’t move, don’t attack mosquitoes).

- Mosquitoes:
  - Move medium speed (move 3 of every 4 turns – aka 75% probability).
  - If next to human, bite human 25% of time. Once biting a human, a mosquito will not bite again for 20 turns (each ‘skeeter needs a counter like we did in class for each field tile changing colors for the fox chasing the bunny).

- Floor tiles:
  - They sit there and do NOTHING! Not a big shock...

- Add a graph that shows the population of the mosquitoes as a red line, population of live humans as blue line, population of bats as a green line, and the number of dead humans as a black line. The graph should be displayed in a window with the title Survivors. It should have a maximum y-value of 76.

- Set the background of the worksheet to be the file pictured at the bottom of this handout. It is posted on the web page and is named skeeter_background.jpg.
• When all the humans are dead, the simulation should bring up the Yes/No dialog and ask if the person wants to reset the simulation. If the user answers yes, then reset the simulation (look in the AgentSheets manual (Help menu -> Reference Manual) for how to use the Yes/No dialog and for a reset “Action.”

• Give the humans a rule such that when the G key on the keyboard is pressed, the simulation is stopped. Again, you’ll probably have to look at the manual to figure out how to do this.

• Optional: Make a web page using the software that contains your simulation.