

1. What does the x-axis of the Populations graph represent? Be specific.
2. What does the y-axis of the Populations graph represent?
3. What was the MAXIMUM value that the Rabbits population reached with default settings when you ran it out to 100 TICKS with the defaults slider settings? At about what TICK did this occur?
4. What was the MINIMUM value that the Rabbits population reached with default settings when you ran it out to 100 TICKS with the defaults slider settings? At about what TICK did this occur?
5. What was the MAXIMUM value that the GRASS reached with default settings when you ran it out to 100 TICKS with the defaults slider settings? At about what TICK did this occur?
6. What was the MINIMUM value that the GRASS reached after it peaked and then started to go down with default settings when you ran it out to 100 TICKS with the defaults slider settings? At about what TICK did this occur?
7. With the GRASS GROW RATE changed from default 15 to very slow, perhaps dry and very little rain grow rate of 3, but all other model settings at the original defaults you ran the model out to about 500 TICKS. Describe what is different about this graph than the previous graph from questions 1 thru 6 when the grass grow rate was at its default 15? You may include a drawing to illustrate and accompany your explanation of the difference.
8. What is the highest PEAK on the y-axis for the number or the count or RABBITS? About when does this PEAK occur, i.e. at about what TICK?
9. According to the THINGS TO NOTICE, what type of oscillation does the rabbit population go through when you run the model with the defaults? (See the INFO tab, instead of the Interface or the Code tab of the NetLOGO model).
10. The total amount of grass also oscillates, _____ with the rabbit population. Fill in the blank question.
11. With the defaults again for all of the SLIDERS, make the following changes for WEEDS. Add weeds by making the sliders WEEDS-GROW-RATE the same as GRASS-GROW-RATE and WEEDS-ENERGY the same as GRASS-ENERGY Run the model out to 100 ticks, about 100 TICKS. What is the y-axis value for the RABBITS? What is the y-axis value for the WEEDS?
12. Now, modify the GRASS-GROW-RATE so it is 5, but leave the WEEDS-GROW-RATE at 15, but change the WEED-ENERGY to 1.0 instead of the 5.0 that you had it at. Run the model out to about 200 TICKS. What is the peak for the WEEDS? About when is that PEAK in TICK? What is the PEAK for the Grass? About when does that occur? What is the peak for the rabbits? About when does that occur?
13. Watch the video on how the Wolves changed Yellowstone. In the video the speaker talks about Trophic Cascades. What is a Tropic Cascade?
14. Explain how the 14 Wolves released in Yellowstone eventually changed rivers ni Yellowstone. Explain in your own words, but quote the video too, if you wish.

<http://www.cs.uni.edu/~jacobson/1025/16f/RabbitsGrassWeeds.pdf>

Due on Friday, October 28th, 2016