**Unit 1 Notes, Part 1 - Population and Community Ecology Questions**

1. Describe the difference between exponential and logistic growth. Draw a simple graph for each type of growth (x-axis: time, y-axis: number of organisms).
2. Which of the following graphs depicting logistic growth is more likely for a REAL population? Use the term carrying capacity in your response.



1. Describe the differences in the survivorship curves between r-selected and k-selected populations.
2. Describe the age structure of each of the populations of each of the three countries shown below—Afghanistan, the United States, and Italy.



1. Describe the population growth rate in each of the three countries based on their age structure pyramids.
2. When slug species A and slug species B live in the same community, Species A eats leaves and species B eats moss. When species B is removed from the community, Species A eats both leaves and moss. What can you infer about the fundamental and realized niches of species A and species B in this community?
3. If there are 34 KJ of energy stored in organisms at the quaternary consumer level, how many KJ of energy are stored at the primary consumer level within this community?
4. Describe the difference between gross primary productivity and net primary productivity.
5. How do we determine species diversity? Describe a situation in which a community would be considered highly diverse.
6. Create a table depicting the following information (each category should be its own column): Type of symbiotic relationship, effect on each species (use 0,+,-), real life example.