Chapter 13 Test Review

**Directions:** Answer the following questions using your notes and text book (chapters 13: Principles of Ecology).

1. Define the following terms:
   a. producer (autotrophy)-
   b. consumer (heterotroph)-
   c. herbivore-
   d. carnivore-
   e. detritovore-
   f. decomposer-
   g. biodiversity-
   h. Keystone species-
   i. Chemosynthesis-

2. What does the following diagram show?

   ![Diagram of carbon cycle](image)

3. Name the trophic levels in a typical food chain

4. Name the levels of organization when studying ecology and describe each.
5. What is the difference between a food chain and a food web.

6. What percent of the energy stored in an organism can be passed on to the next trophic level?

7. What is nitrogen fixation and what biogeochemical cycle is it part of?

8. What is denitrification and what biogeochemical cycle is it part of?

9. Summarize what happens in each of the biogeochemical cycles below
   a. Hydrologic (water) Cycle-
   b. Carbon Cycle-
   c. Nitrogen Cycle-
   d. Phosphorus Cycle-

10. Describe what the following ecological pyramids tell us
    a. Pyramid of Numbers-
    b. Energy Pyramid-
    c. Biomass Pyramid-