

4. Suppose that you have just started a summer internship working for a cooperative extension service, where you will collect soil samples, conduct laboratory and field tests, and make recommendations on soil conservation and agricultural practices.
  - (a) Identify and describe one chemical soil test and one physical soil test that could be performed and explain how the results of these tests will allow the cooperative extension service to make specific recommendations for sustainable agriculture.
  - (b) Explain one advantage and one disadvantage to using inorganic commercial fertilizers.
  - (c) Describe TWO soil conservation practices that are designed to decrease soil erosion.
  - (d) Identify one biome that is characterized by soil that is rich in humus. Describe how humus originated in the soils of this biome and TWO ways that humus improves soil conditions for plant growth.