1. Which of the following statements about nucleic acids are CORRECT?

    i. There are three types of purine bases and two types of pyrimidine bases.
    ii. Adenine is a pyrimidine and pairs with thymine, which is a purine.
    iii. Cytosine is a pyrimidine and pairs with guanine, which is a purine.
    iv. Uracil is very similar in structure to thymine.
    v. A nucleoside triphosphate is a nucleotide.
    vi. Nucleotides are joined together via phosphate bonds.

    a. i, ii, iii, and v
    b. ii, iii, and iv
    c. iii, iv, and v
    d. i, ii, iv, and vi

2. Which of the following is TRUE regarding model organisms?

    a. The discovery of chromosomes was made in *Drosophila*, making these fruit flies fundamentally important to the study of genetics and heredity in prokaryotes.
    b. *Arabidopsis thaliana* is a great model organism for all plants because it is a large plant with a long life cycle.
    c. Zebrafish are an ideal organism in which to study molecular mechanisms of aging because they become more transparent as they age.
    d. Nearly three-quarters of the genes found in humans are similar to genes in *Caenorhabditis*