1. Which of the following statements is TRUE?
    a. *Arabidopsis thaliana* is a useful model organism for plants, but because it is a weed, it does not have many genes in common with agricultural crop plants.
    b. *Saccharomyces cerevisiae* is a unicellular species that grows quickly in the laboratory and is the best model organism for prokaryotes.
    c. *Escherichia coli* is the best-studied model organism and can be used to produce large quantities of therapeutic proteins.
    d. It is not yet possible to grow and study human cell types *in vitro*.

2. All of the following are evidence supporting the endosymbiont theory of eukaryotic evolution EXCEPT:
    a. The precursor cell to aerobic prokaryotes contained bacterial endosymbionts that appeared to have lost all of their DNA.
    b. Mitochondria and chloroplast ribosomes can be affected by the same antibiotics that affect bacterial ribosomes.
    c. Mitochondrial and chloroplast membranes are similar to those found in prokaryotes.
    d. Mitochondrial and chloroplast genomes are circular in contrast to the linear chromosomes found in eukaryotic nuclear genomes.