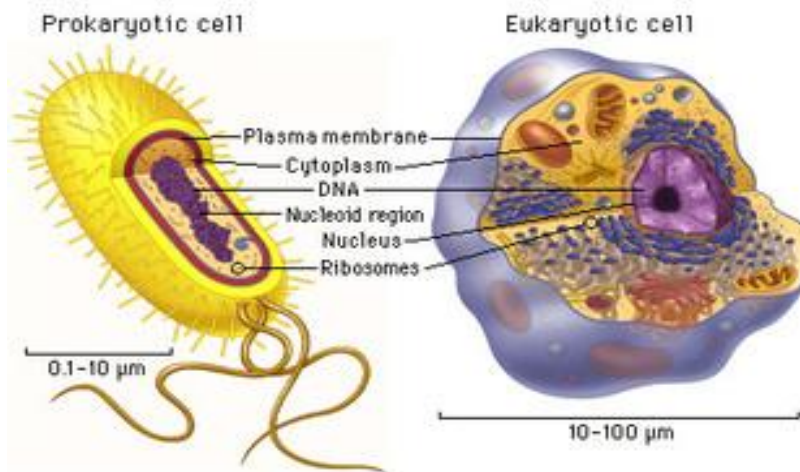


Name _____ Date _____ Period _____

Biology Homework 1-3.2 Cells II

Use your **journal** as a reference tool in addition to the information provided below. Circle your answer choices and justify your answers.

Eukaryotes	Prokaryotes
<ol style="list-style-type: none">1. Large cells2. Many organelles; complex cells3. Have a nucleus with DNA inside4. Plants; animals	<ol style="list-style-type: none">1. Smaller than eukaryotes2. No organelles; simpler cells than eukaryotes3. No nucleus; DNA is circular and floats in middle of cell.4. Bacteria
Both have a cell membrane, cytoplasm, DNA, and ribosomes.	



Chloroplast - site of photosynthesis

Endoplasmic reticulum (ER) - a series of highly folded membranes that act as the highway of the cell

Golgi apparatus - a series of flattened membrane sacs that sorts, modifies, and distributes proteins

Lysosomes - contain enzymes that digest or break down worn out cell parts, excess food particles, and invading bacteria or viruses

Mitochondria - produce usable energy in the form of ATP through cellular respiration

Nucleus - contains DNA, which holds the instructions for making proteins

Ribosomes - the site of protein synthesis

Vacuoles - store things (enzymes, food, and other materials) within the cell

1. Which of the following is a main difference between prokaryotic and eukaryotic cells?
 - a. smaller size of eukaryotes
 - b. absence of a membrane-bound nucleus in prokaryotes
 - c. absence of ribosomes in prokaryotes
 - d. absence of organelles in eukaryotes

2. Which statement is false?
 - a. Eukaryotes are much more complex than prokaryotes
 - b. The components inside a prokaryotic cell lack membranes
 - c. Prokaryotes were the first organisms on Earth
 - d. Prokaryotes lack genetic material

3. Muscle cells require a great deal of energy. Therefore, they are likely to have a high number of -
 - a. Golgi
 - b. Mitochondria
 - c. ER
 - d. Lysosomes

4. If a cell was unable to produce ribosomes, which of the following would it be unable to make?
 - a. carbohydrates
 - b. proteins
 - c. nucleic acids
 - d. lipids

5. Which organelle is most like a miniature stomach inside of the cell?
 - a. Vacuole
 - b. Endoplasmic reticulum
 - c. Lysosome
 - d. Chloroplast

6. Which of the following is not a cell organelle?
 - a. mitochondrion
 - b. cytoplasm
 - c. endoplasmic reticulum
 - d. lysosome

7. Which of the following would you find in a plant cell but not in an animal cell?
 - a. cell membrane
 - b. endoplasmic reticulum
 - c. nucleus
 - d. chloroplast

8. A cell without a nucleus is called-
 - a. Prokaryotic
 - b. eukaryotic