

# Cell Biology

Name: \_\_\_\_\_

## Life of a Eukaryotic Cell

Period: \_\_\_\_\_

Use Chapter 5, Section 2 of your textbook to answer the questions below. The word banks can be used to fill out the sentences below them.

chromosomes    daughter cells    DNA    many    mitosis

### Section 2: The Cell Cycle

1. [review from p.152] DNA of a cell is organized into structures called \_\_\_\_\_ .

### Eukaryotic Cells and Their DNA (p.153)

2. Unlike prokaryotic cells, eukaryotic cells have \_\_\_\_\_ chromosomes.

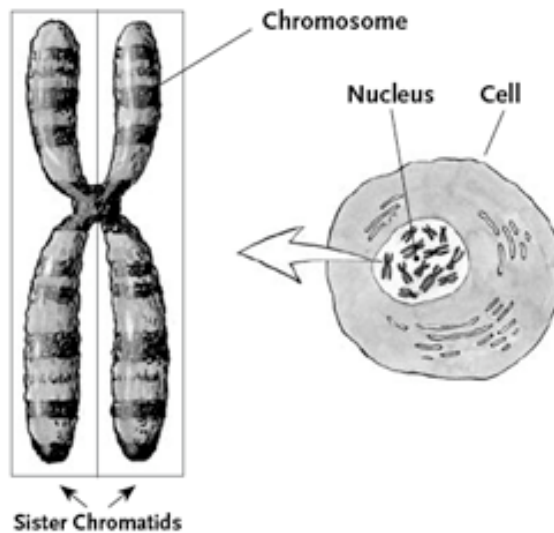
3. Eukaryotes have more \_\_\_\_\_ than prokaryotes.

4. How many chromosomes do humans have? \_\_\_\_\_

5. Look at Figure 2. How many sets (pairs) of chromosomes do humans have? \_\_\_\_\_

\_\_\_\_\_ 6. What are pairs of similar chromosomes called?

- a. prokaryotic pairs
- b. homologous chromosomes
- c. DNA chromosomes
- d. eukaryotic pairs



### Making More Eukaryotic Cells (p.153)

Match the stage of the eukaryotic cell cycle to what happens.

\_\_\_\_\_ 7. first stage

a. cell splits into two daughter cells

\_\_\_\_\_ 8. second stage

b. cell grows and copies its organelles and chromosomes

\_\_\_\_\_ 9. third stage

c. chromatids separate

10. The process of separating chromosomes is called \_\_\_\_\_ .

11. When cells are copied, the two copies are called \_\_\_\_\_ .

12. A fruit fly has 8 chromosomes. How many chromosomes will a fruit fly daughter cell have? \_\_\_\_\_