

## Cell Biology

### Mitosis

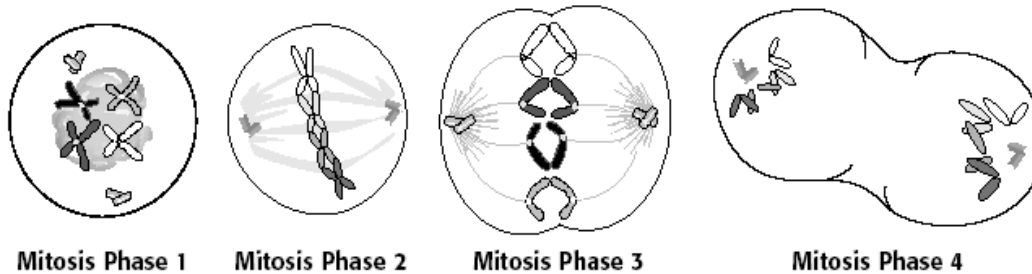
Name:

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Use Chapter 5, Section 2 of your textbook to answer the questions below.

#### Mitosis and the Cell Cycle (p.154)

Use the figure below and Figure 4 in your book to answer questions 1 through 7.



1. Just before mitosis begins, the chromosomes in the nucleus of the cell are \_\_\_\_\_.
2. When chromosomes turn into rodlike structures, \_\_\_\_\_ has begun.
3. Before paired chromatids can line up in the center of the cell, the \_\_\_\_\_ must dissolve.
4. After lining up in the center of the cell, the paired chromatids \_\_\_\_\_ and move to opposite sides of the cell.
5. Once the chromosomes are at opposite sides of the cell, a \_\_\_\_\_ forms around each set of chromosomes.
6. Finally, \_\_\_\_\_ is complete when the chromosomes decondense in the newly-formed nuclei.
7. After the nuclear membranes have formed around the chromosomes, the \_\_\_\_\_ pinches in two, making two new cells.

### Cytokinesis

8. When the cytoplasm of a cell is divided by the cell membrane, the process is called \_\_\_\_\_.
9. Two \_\_\_\_\_ are formed after cytokinesis.
- \_\_\_\_\_ 10. Which of the following does the cell membrane do during cytokinesis in an animal cell?  
a. pinches in two    b. forms a cell plate    c. makes copies of its DNA    d. shrivels up
- \_\_\_\_\_ 11. Which of the eukaryotic cells below do NOT have a cell wall?  
a. algae cells    b. plant cells    c. animal cells    d. fungi cells
- \_\_\_\_\_ 12. What forms between the two new cells during plant cell cytokinesis?  
a. a cell plate    b. a cell membrane    c. a nuclear membrane    d. cytoplasm