

**Chapter 10 Cell Growth and Division**

**Chapter Vocabulary Review**

**Completion** *On the lines provided, complete the following sentences.*

1. The M phase is also known as \_\_\_\_\_.
2. Each pair of chromatids is attached at an area called the \_\_\_\_\_.
3. The three phases of \_\_\_\_\_ are G<sub>1</sub>, S, and G<sub>2</sub>.
4. The \_\_\_\_\_ is the series of events that cells go through as they grow and divide.
5. The \_\_\_\_\_ is a fanlike microtubule structure that helps separate the chromosomes.
6. \_\_\_\_\_ is the division of the cell nucleus.
7. The four phases of mitosis are \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, and \_\_\_\_\_.
8. The division of the cytoplasm during the M phase is called \_\_\_\_\_.
9. Proteins known as \_\_\_\_\_ regulate the timing of the cell cycle in eukaryotic cells .
10. \_\_\_\_\_ is a disorder in which some of the body's own cells lose the ability to control growth.

**Multiple Choice** *On the line provided, write the letter that best completes the statements or answers the question.*

- \_\_\_\_\_ 11. What process ensures that each daughter cell gets one complete set of genetic information and that each daughter cell also has increased surface area?
 

a. cell division	c. cytokinesis
b. mitosis	d. cancer
- \_\_\_\_\_ 12. Before cell division, each chromosome consists of two identical "sister"
 

a. centromeres.	c. chromatids.
b. cell cycles.	d. spindles.
- \_\_\_\_\_ 13. The four phases of the cell cycle are
 

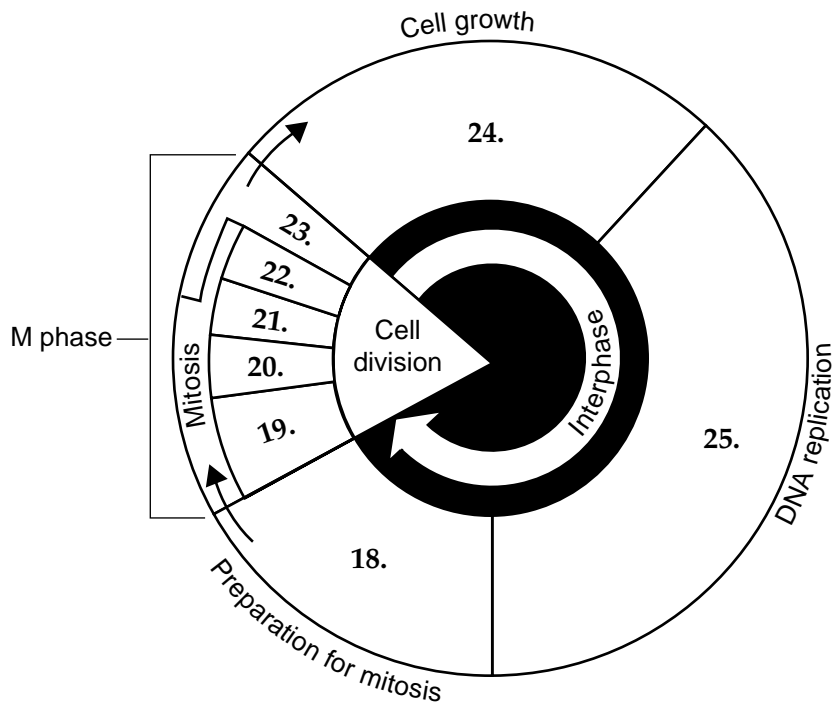
a. interphase, mitosis, G <sub>1</sub> , and G <sub>2</sub> .
b. M phase, G <sub>1</sub> phase, S phase, and G <sub>2</sub> phase.
c. prophase, metaphase, anaphase, and telophase.
d. cytokinesis, mitosis, interphase, and metaphase.
- \_\_\_\_\_ 14. What phase of mitosis takes the longest period of time?
 

a. prophase	c. anaphase
b. cytokinesis	d. interphase

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- \_\_\_\_\_ 15. What part of the cell separates and takes up positions on opposite sides of the nucleus during prophase?  
 a. centrioles                      c. chromatids  
 b. centromeres                      d. spindles
- \_\_\_\_\_ 16. What phase of mitosis usually occurs at the same time as cytokinesis?  
 a. anaphase                      c. prophase  
 b. telophase                      d. cell division
- \_\_\_\_\_ 17. What is the name for tumors that form and can cause damage to surrounding tissue?  
 a. cyclins                      c. cytokinesis  
 b. mitosis                      d. cancer

**Labeling Diagrams** On the lines below, label the events in the cell cycle that correspond with the numbers in the diagram.



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|-----------|-----------|
| 18. _____ | 22. _____ |
| 19. _____ | 23. _____ |
| 20. _____ | 24. _____ |
| 21. _____ | 25. _____ |