

Chapter 10 Cell Growth and Division **Section Review 10-2**

Reviewing Key Concepts

Short Answer *On the lines provided, answer the following questions.*

- 1. What are the four phases of the cell cycle?

- 2. What happens when the cell copies its chromosomes?

- 3. What happens during cytokinesis?

Classifying *On the line provided, label each event with one of the four phases of mitosis in which it occurs. A phase may be used more than once.*

- _____ 4. The chromosomes line up across the middle of the cell.
- _____ 5. Chromosomes become visible.
- _____ 6. Centrioles separate.
- _____ 7. Sister chromatids separate into individual chromosomes.
- _____ 8. Two new nuclear envelopes form.
- _____ 9. The nucleolus disappears and the nuclear envelope breaks down.
- _____ 10. Each chromosome is connected to a spindle fiber.
- _____ 11. The individual chromosomes move apart.

Reviewing Key Skills

- 12. **Applying Concepts** Explain why the terms *cell division* and *mitosis* should not be used interchangeably.

- 13. **Calculating** If a particular type of cell completes one cell cycle in 75 minutes, and you start with one cell, how many cells would be present after 7.5 hours?

- 14. **Inferring** Many plant cells have more than two complete sets of chromosomes in each cell. Explain how this might occur.

- 15. **Comparing and Contrasting** How does an animal cell differ from a plant cell during cell division?

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