

Name _____ Date _____ Period _____

Chapter 10 Cell Growth and Division

Multiple Choice

Write the letter that best answers the question or completes the statement on your answer sheet.

1. As the cell gets larger, its
 - a. volume increases faster than its surface area.
 - b. surface area increases faster than its volume.
 - c. volume increases, but its surface area stays the same.
 - d. surface area stays the same, but its volume increases.
2. As a cell grows, it
 - a. places more demands on its DNA.
 - b. uses up food and oxygen more quickly.
 - c. has more trouble moving enough materials across its cell membrane.
 - d. all of the above.
3. When during the cell cycle are chromosomes visible?
 - a. only during interphase
 - b. only when they are being replicated
 - c. only during cell division
 - d. only during the G₁ phase
4. Which pair is correct?
 - a. G₁ phase, DNA replication
 - b. G₂ phase, preparation for mitosis
 - c. S phase, cell division
 - d. M phase, cell growth
5. The cell cycle is the
 - a. series of events that cells go through as they grow and divide.
 - b. Period of time between the birth and the death of a cell.
 - c. Time from prophase until cytokinesis.
 - d. Time it takes for one cell to undergo mitosis.
6. What happens when cells come into contact with other cells?
 - a. They divide more quickly.
 - b. They stop growing.
 - c. They produce cyclins.
 - d. They produce p53.
7. Which of the following explains why normal cells grown in a Petri dish tend to stop growing once they have covered the bottom of the dish?
 - a. The cells lack cyclin.
 - b. The Petri dish inhibits cell growth.
 - c. Contact with other cells stops cell growth.
 - d. Most cells do not grow well in-vitro.