Name_____ Class_____ Date _____

# Section 10–1 Cell Growth (pages 241–243)

**Key Concept**

- What problems does growth cause for cells?

## Limits to Cell Growth (pages 241–243)

**1.** What are two reasons why cells divide rather than continue to grow indefinitely?

**a.** _____

_____

**b.** _____

_____

_____

**2.** Is the following sentence true or false? As a cell increases in size, it usually makes extra copies of its DNA. _____

**3.** Circle the letter of what determines the rate at which food and oxygen in a cell are used up and waste products produced.

**a.** The cell's organelles **c.** The cell's location

**b.** The cell's volume **d.** The cell's DNA

**4.** How can you obtain a cell's ratio of surface area to volume? _____

_____

**5.** If a cell's surface area is 6 $cm^3$ and its volume is 1 $cm^3$, then what is its ratio of surface area to volume? _____

**6.** Is the following sentence true or false? As a cell grows in size, its volume increases much more rapidly than its surface area. _____

**7.** Circle the letter of what happens to a cell's ratio of surface area to volume as the cell's volume increases more rapidly than its surface area.

**a.** The ratio decreases. **c.** The ratio remains the same.

**b.** The ratio increases. **d.** The ratio disappears.

## Division of the Cell (page 243)

**8.** What is cell division? _____

_____

_____

**9.** How does cell division solve the problem of increasing size? _____

_____

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