CHAPTER 5 **The Cell Cycle**   **BLM 2-12**

Goal • Review terms and concepts about the cell cycle.

What to Do

**Match the Statements on the left with the correct Phase on the right.
Each Phase may be used more than once.**

Statement	Phase
_D_ _C_ 1. nucleolus appears within each new nucleus	A. prophase
_____ 2. centromeres divide	B. metaphase
_A_ 3. chromosomes become visible	C. anaphase
_A_ 4. spindle fibres begin to form	D. telophase
_E_ 5. DNA replicates	E. interphase
_C_ 6. replicated strands move toward opposite poles	
_B_ 7. chromosomes form a line across the middle of the cell	
_D_ 8. nuclear membrane forms around each set of chromosomes	
_E_ 9. cell grows	

10. Place a check mark (✓) under each phase in which you can see the structures listed in the first column.

Structures Present	Interphase	Prophase	Metaphase	Anaphase	Telophase
Nucleus	✓	✓ / x			✓ late telophase
Nucleolus	✓	✓ / x			✓ telophase return
Nuclear membrane	✓	✓ / x late prophase			✓
Chromatin	✓	✓ / x			✓
Chromosomes		✓	✓	✓	
Spindle fibres		✓	✓	✓	

11. Describe the end result of mitosis.
    two identical (genetically) daughter cells

CHAPTER 5   Cell Growth and Division   BLM 2-14

Goal • Review your understanding of the phases of the cell cycle.

What to Do

Write the name of the stage of the cell cycle that corresponds to each event described below.

1. Centromeres divide. ___anaphase___

2. Centrioles move to opposite ends of the cell. ___prophase___

3. Nuclear membranes form around each mass of chromosomes. ___telophase___

4. Chromosome strands separate and move toward opposite ends of the cell. ___anaphase___

5. A copy of each chromosome is made. ___interphase___

6. Cell membrane pinches together and the cytoplasm of the cell divides. ___cytokinesis___

7. The nuclear membrane disappears. ___prophase (late)___

8. Daughter cells form. ___cytokinesis___

9. Double-stranded chromosomes line up in the centre of the cell. ___metaphase___

10. It makes up most of a cell's life. ___interphase___

Short Answer

11. In mitosis, how many cells form from the original cell? ___two cells___