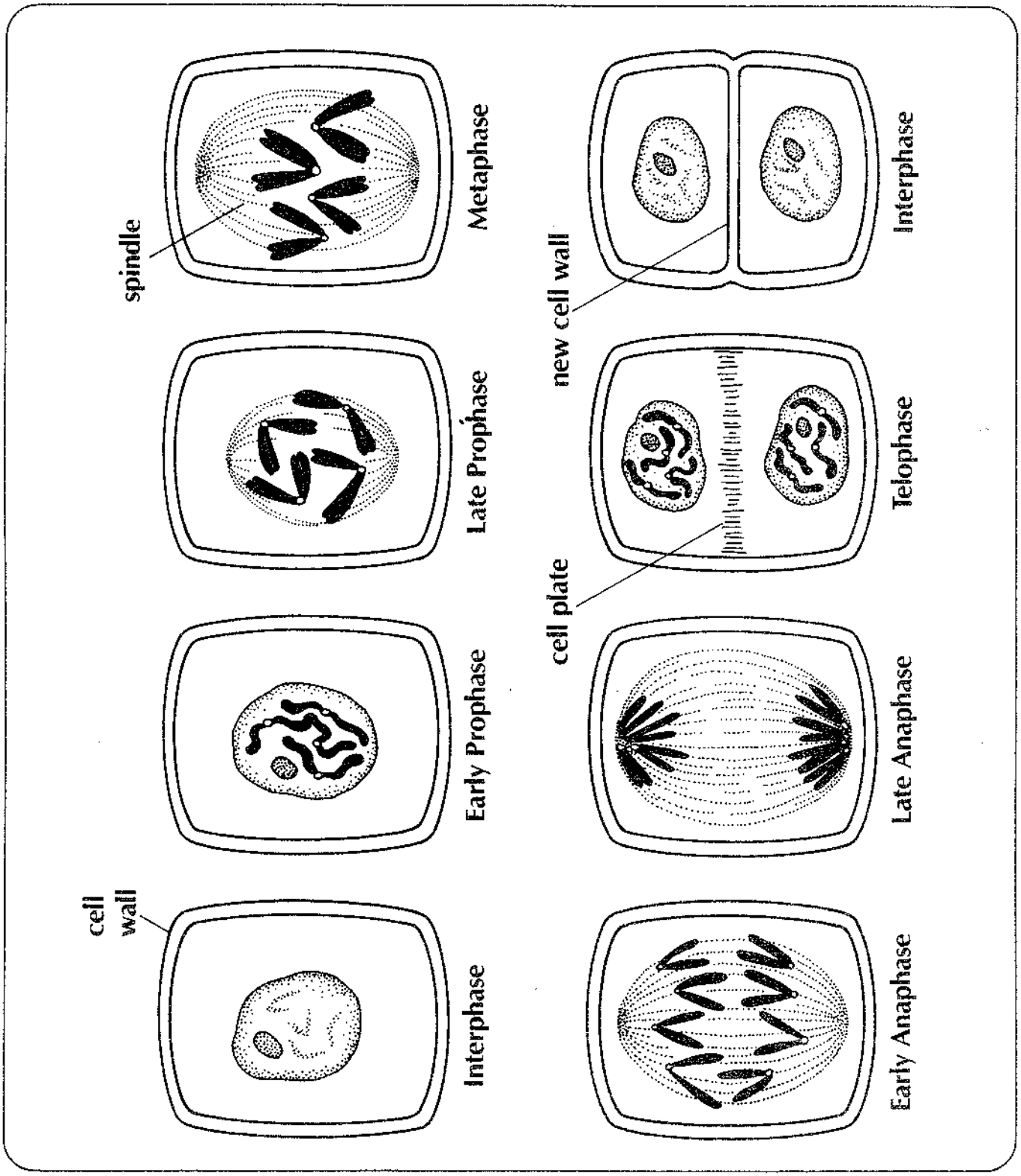
Name _____ Date _____

OVERHEAD TRANSPARENCY MASTER

CHAPTER 20

Interphase and Mitotic Cell Division in Plant Cells

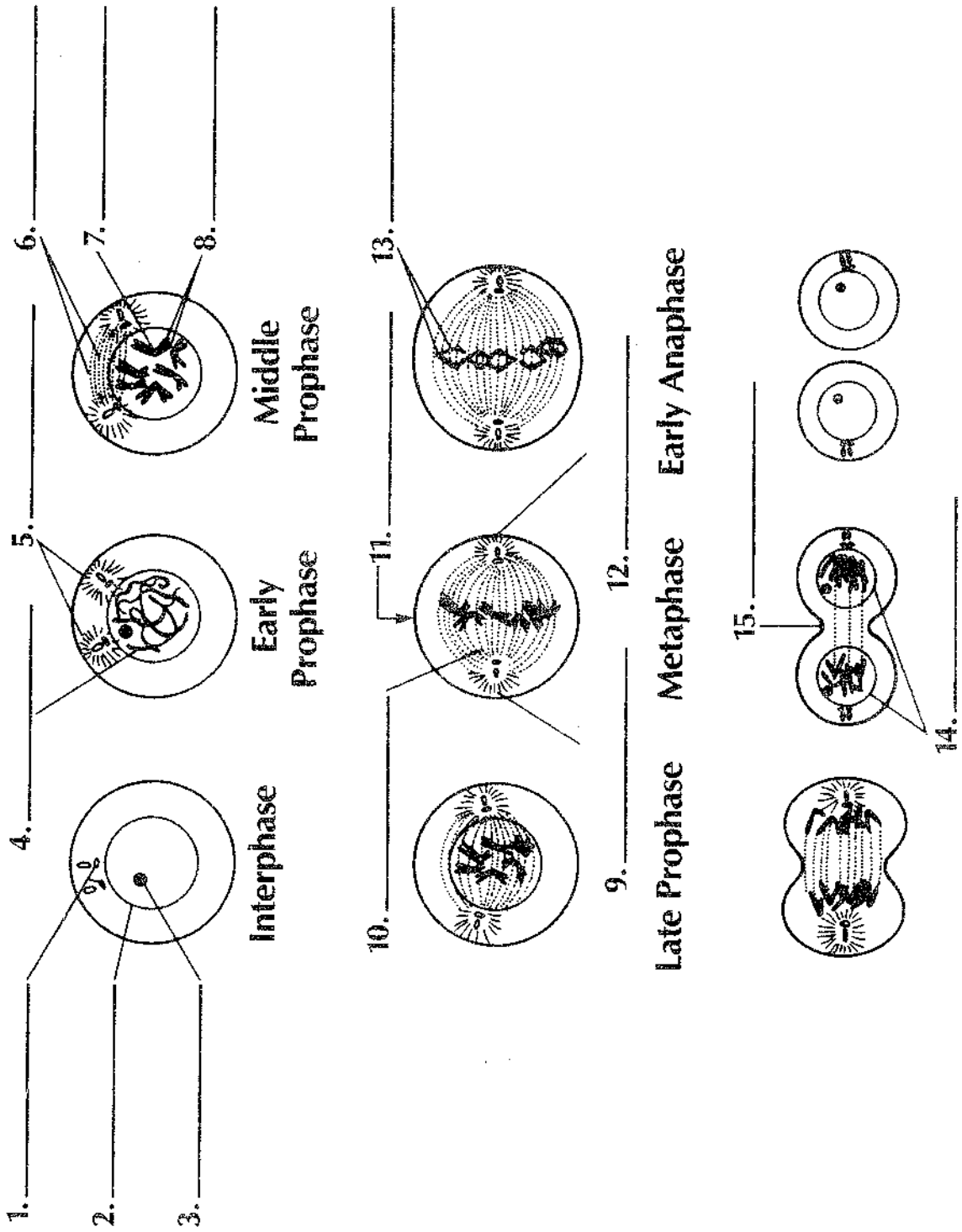


Name _____ Date _____

OVERHEAD TRANSPARENCY MASTER

CHAPTER 20

Interphase and Mitotic Cell Division in Animal Cells



Name _____ Date _____

CHAPTER REVIEW

CHAPTER 20

Understand the Concepts

Answer each of the following questions in one or two sentences.

1. List the four stages of mitosis in their proper sequence. _____

2. Describe what happens in metaphase of mitosis. _____

3. How is mitosis in plant cells different than in animal cells? _____

4. How is telophase of mitosis the reversal of prophase? _____

5. Where in the cell does most of the activity occur during mitosis? _____

6. What are the advantages of asexual reproduction? _____

7. What is the disadvantage of asexual reproduction? _____

8. What is the purpose of mitosis? _____

9. List five methods of asexual reproduction. _____

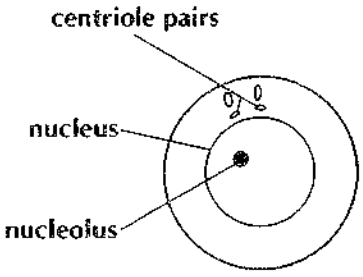
Name _____ Date _____

SKILLS APPLICATION

CHAPTER 20

Reading Diagrams, Tables, and Charts

1. Below are diagrams of interphase and mitotic cell division in animal cells. According to the descriptions given below the diagrams, assign a different phase to each diagram.



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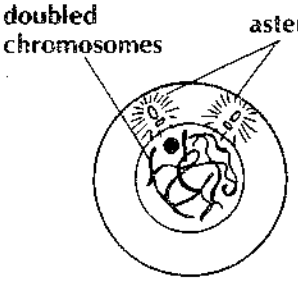

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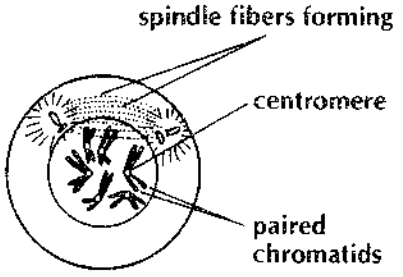

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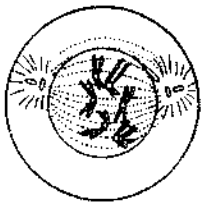

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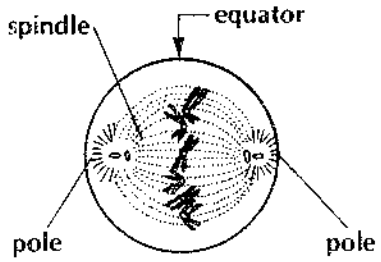

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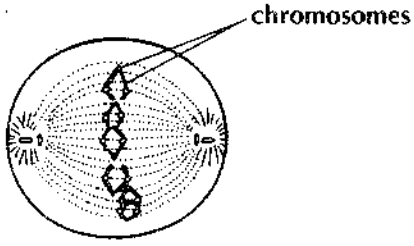

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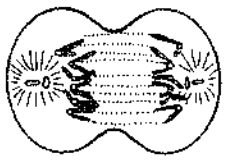

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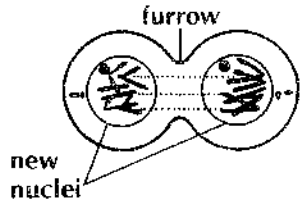

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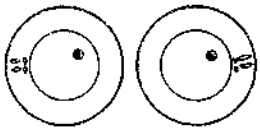

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Early prophase Centriole pairs move toward opposite poles. Double chromosomes become visible as long threads. Fibers extend outward from centrioles and form star-shaped structures called asters.
Interphase Nucleus is bound by nuclear membrane. One or more nucleoli are present. Chromosomes are not distinguishable. Near nucleus are centrioles at right angles to each other.
Metaphase Centromeres of double chromosomes are lined up at equator. At the end of metaphase, the centromeres divide and the two chromatids of each doubled chromosome become separate, duplicate chromosomes.
Interphase (2) Two new daughter cells are in interphase.
Early anaphase Separate, duplicate chromosomes begin to move apart.
Late prophase Double chromosomes begin moving toward equator. Nuclear membrane and nucleolus disappear.
Late anaphase Duplicate chromosomes move apart to opposite poles.
Middle prophase Spindle fibers form and extend between the poles. Two halves of each double chromosome (called chromatids) are connected at a region called the centromere.
Telophase Spindles and asters disappear. Nuclear membrane begins to form around each daughter nucleus. New nucleoli appear. Furrow forms.