

SECTION 8-3 REVIEW

MEIOSIS

VOCABULARY REVIEW Define the following terms.

1. gamete _____

2. tetrad _____

3. independent assortment _____

4. polar bodies _____

MULTIPLE CHOICE Write the correct letter in the blank.

- _____ 1. During synapsis, the

a. DNA in each chromosome is copied.	c. cytoplasm divides.
b. spindle fibers disappear.	d. chromosomes line up next to their homologues.

- _____ 2. During crossing-over, portions of chromatids

a. double the amount of DNA in each chromosome.	c. break off and attach to adjacent chromatids on the homologous chromosome.
b. move from autosomes to sex chromosomes.	d. separate from each other and move to opposite poles of the cell.

- _____ 3. In which phase of meiosis do tetrads form?

a. prophase I	b. telophase I	c. metaphase II	d. anaphase II
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- _____ 4. Meiosis II

a. is preceded by the copying of DNA.	c. separates homologous chromosomes into opposite poles of the cell.
b. separates chromatids into opposite poles of the cell.	d. produces diploid offspring cells.

- _____ 5. In oogenesis, a diploid reproductive cell divides meiotically to produce

a. one diploid gamete.	c. one haploid gamete.
b. four diploid gametes.	d. four haploid gametes.

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SHORT ANSWER Answer the questions in the space provided.

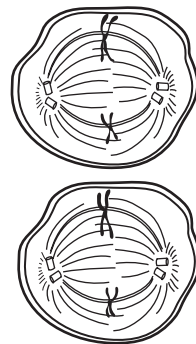
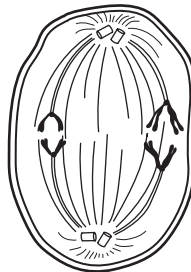
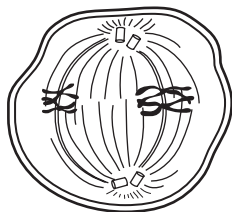
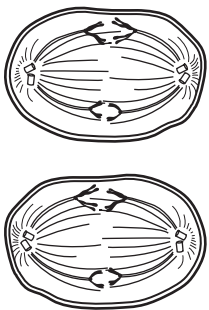
1. Describe two ways in which genetic recombination occurs during meiosis. _____

2. List the four phases of meiosis I, and briefly explain what occurs during each phase.

3. How do the products of meiosis I differ from those of meiosis II? _____

4. **Critical Thinking** What are one advantage and one disadvantage of asexual reproduction compared with sexual reproduction? _____

STRUCTURES AND FUNCTIONS In the spaces provided below, label each figure with the phase of meiosis that it represents.



a _____ b _____ c _____ d _____