DATE: NAME: CLASS:

CHAPTER 6 Gametes

BLM 2-28

Goal • Review your understanding of gametes.

What to Do

In the spaces provided, write the term from the list below that best completes the sentence. Terms may be used more than once. You will not need to use every term.

body cells, chromosomes, crossing over, egg cells, gametes, meiosis, mitosis, sperm cells

1. Organisms produce _____ through mitosis.

2. The main job of _____ is to join together to produce a new organism.

3. In humans, _____ have 46 chromosomes.

4. Gametes are the only cells that are not produced by _____.

5. _____ are the female gametes.

6. _____ are the male gametes.

7. _____ contain the instructions that tell a cell how to develop.

In the space provided, answer the following question.

8. Describe the relationship between chromosome numbers in body cells and gametes.

_____

_____

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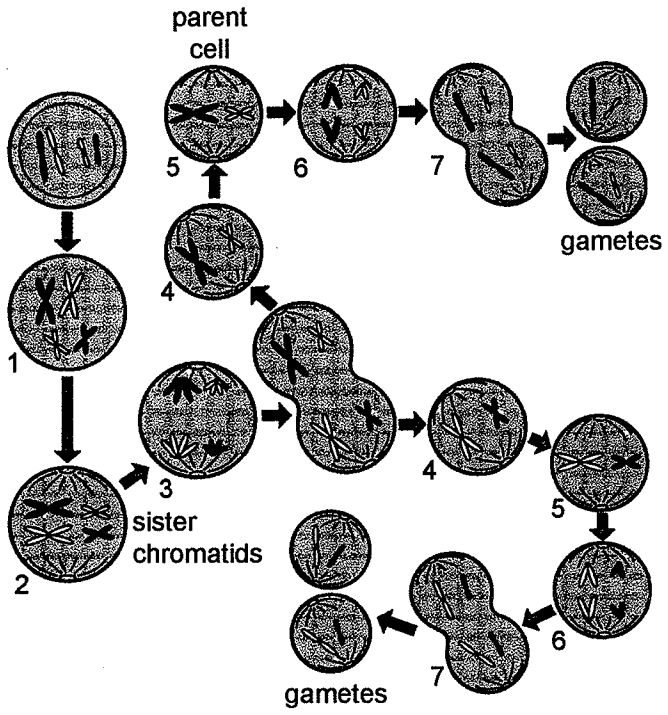
CHAPTER 6 # Key Events in Meiosis **BLM 2-29**

Goal • Review the steps of meiosis.

What to Do

Use the diagram to answer the questions that follow.



1. Each chromosome doubles itself, forming two identical copies, called sister chromatids.
   (a) How many chromosomes are in diagram 1? _____ (b) How many chromatids ? _____

2. The doubled chromosomes come together in matching pairs in diagram 2. Where do they line up? _____

3. (a) The chromosomes separate in diagram 3. Where are they pulled? _____
   (b) Are the chromosomes that have been pulled all the same or are they different? _____

4. The first division of meiosis has occurred, and the cell has formed two new cells (diagram 4). What are the contents of these cells? _____

5. In diagram 5, the chromosomes again line up along the centre of each new cell. How does this step differ from diagram 2? _____

6. In diagram 6, the sister chromatids separate and move to opposite ends of the cell. How is this stage of meiosis very similar to mitosis? _____

7. (a) The cells divide in diagram 7. How many new cells are formed by meiosis? _____
   (b) Compared to the parent cell, how many chromosomes does a new cell have? _____

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CHAPTER 5

Compare the Events of Meiosis and Mitosis

BLM 2-30

Goal • Use this page to compare the events of meiosis and mitosis.

What to Do

Study the diagrams of mitosis and meiosis in your student book. Use words and/or labelled drawings to compare the following events.

Meiosis I	Mitosis
Prophase I	Prophase (early and late)
Metaphase I	Metaphase
Anaphase I	Anaphase
Telophase I	Telophase
Interkinesis	Cytokinesis

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BLM 2-30 continued

Meiosis II	Mitosis
Prophase II	Prophase (early and late)
Metaphase II	Metaphase
Anaphase II	Anaphase
Telophase II	Telophase
Cytokinesis	Cytokinesis