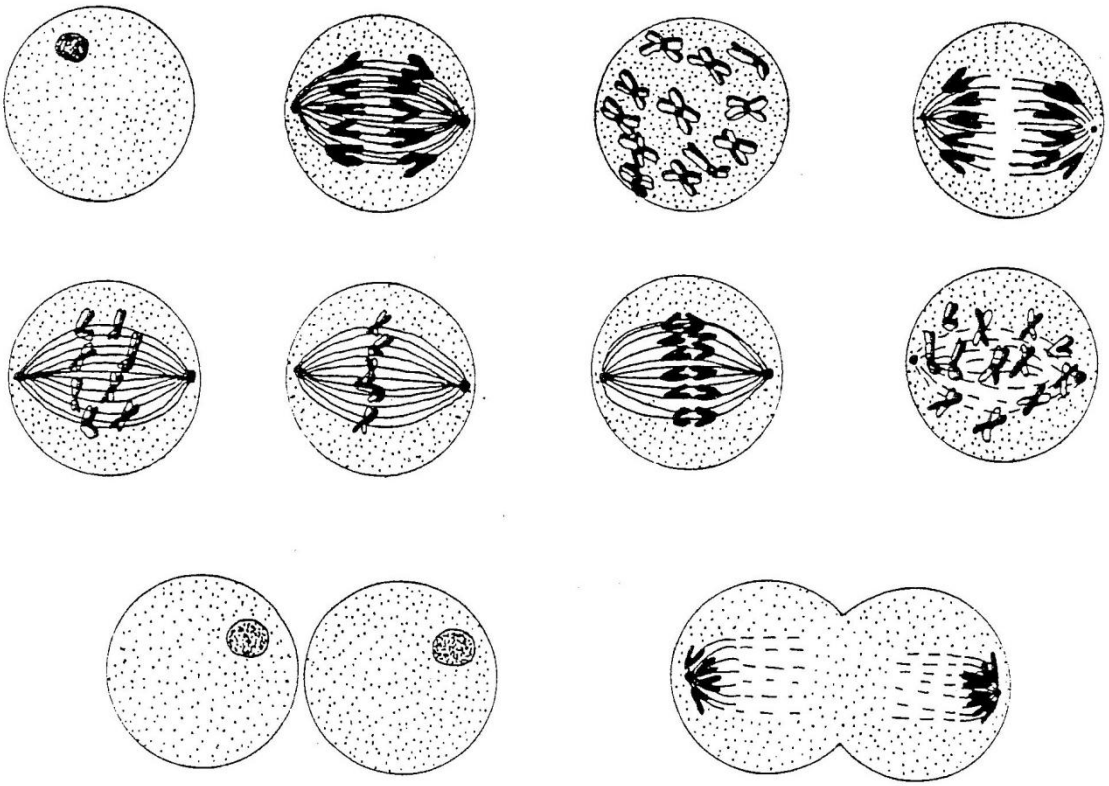
Mitosis and Meiosis Name _____ Per. ____

Refer to Section 9.1 and 9.2 (pp.244-252) and Section 10.1 (pp.270-276) in the textbook.

Section 1: Mitosis

1. *Label the following diagrams with the proper phase.*



2. What is the key activity of mitosis and for what two uses do multicellular organisms use mitosis?

3. What are the three parts of the cell cycle?

4. What are two important events happening during interphase?

5. Name four main events happening in prophase.

6. Name one event occurring in metaphase.

7. Name one event occurring in anaphase.

8. Name two events occurring in telophase.

Section 2: Meiosis

9. Using the word *diploid*, explain an important result of **mitosis**.

10. If the diploid number in humans is 46, what is the haploid number?

11. What is a gamete? What are the male and female gametes called?

12. One diploid cell becomes _____ haploid cells at the end of meiosis.

13. What are homologous chromosomes?

14. What occurs during prophase I (meiosis) that is different from prophase (mitosis)?

15. What is crossing-over? What does it result in?

16. Why must meiosis reduce the chromosome number in half for gametes?

17. How would a cell in metaphase I look if it had a diploid number of 6? Use a diagram.

18. What are three differences between mitosis and meiosis? Fill in the chart.

	MITOSIS	MEIOSIS
a.		
b.		
c.		