Name_____

AP Biology
TEXT: *Biology*, Campbell and Reece
7th Edition
Chapter 13

Meiosis
Thematic Review Guide

1. Explain the key features of the two categories of reproduction.

a. Asexual Reproduction _____

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b. Sexual Reproduction _____

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2. What is the role of meiosis in sexual reproduction?

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3. What is a karyotype?

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4. Identify several things that can be seen with a karyotype?

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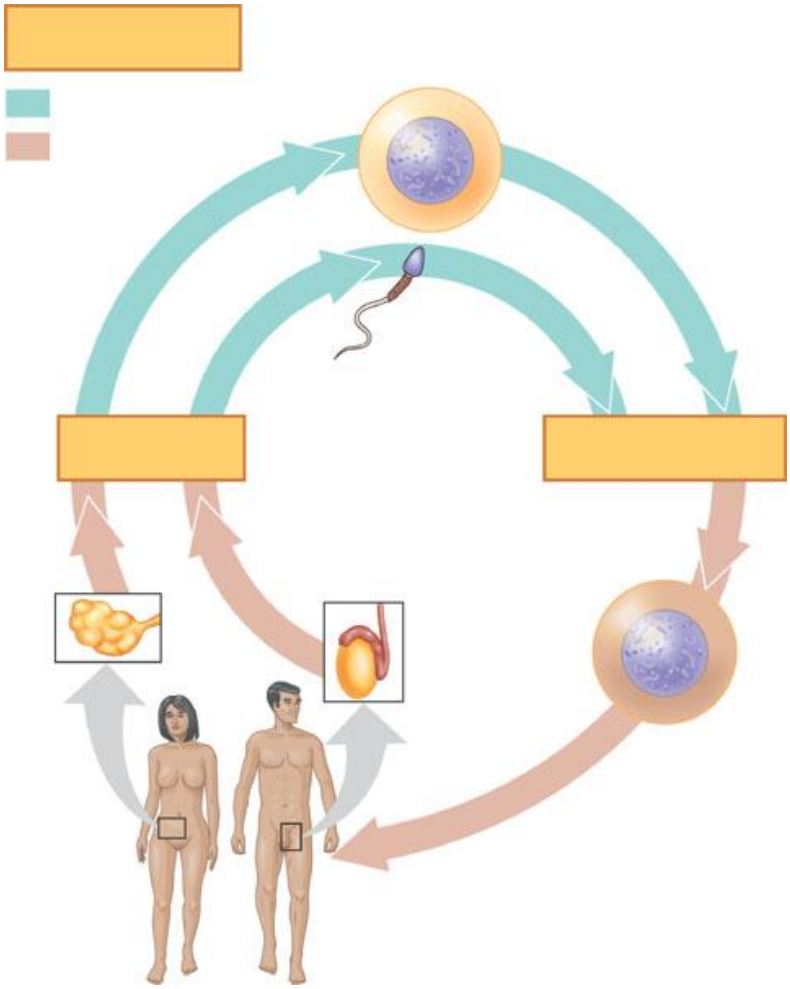
5. Label the diagram of the human lifecycle. Be sure to include the chromosome numbers.



6. Compare the **products** of mitosis with those of meiosis.

a. Mitosis _____

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b. Meiosis _____

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7. Meiosis is said to be a ***"double"*** division. Explain the use of this reference.

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8. Meiosis is an important source of variation. Define and describe how each of the following contributes to **variation** within a species.

a. Independent Assortment _____

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b. Random fertilization _____

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c. Crossing Over _____

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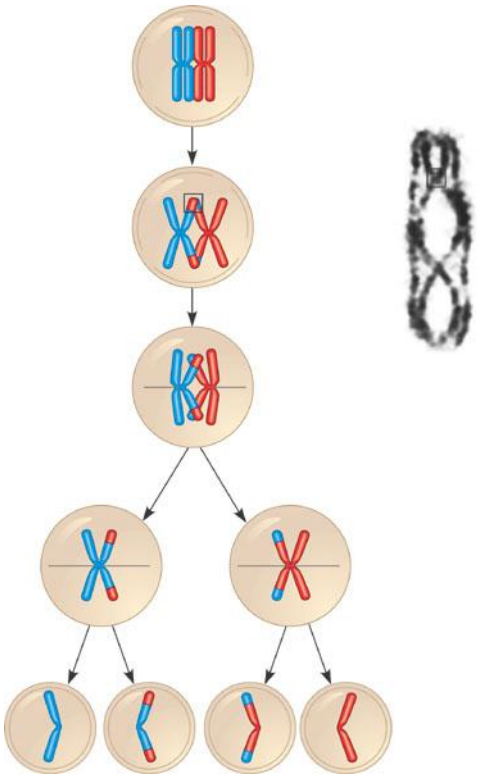
9. Label the flowgram of homologous chromosomes being certain to indicate the crossing-over event and the products of this process.



10. List the significant **differences** between mitosis and meiosis.

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11. What is the significance of genetic variation and natural selection?