

Meiosis Pre-Class Assignment**Name:**

1. What is meiosis?
2. What type of cell undergoes meiosis?
3. Meiosis produces _____ reproductive cells called _____.
4. What effect does meiosis have on the chromosome number of a cell? What is this ploidy called?
5. How do the cells produced by meiosis reestablish a complete set of chromosomes?
6. The fusion of a _____ and an _____ produces a _____ with 46 (2n) chromosome number.
7. How many times do cells divide during meiosis?
8. What is a tetrad?
9. What is crossing over and what happens during crossing-over?
10. Sketch and color a picture of chromosomes during crossing-over.

11. In which stage of meiosis is crossing-over found?
12. What type of material is exchanged during crossing-over?
13. Crossing over results in genetic _____.
14. How many cells are formed at the end of Meiosis I & how many copies of chromosomes does each cell have?
15. Is DNA copied directly before Meiosis II?
16. How many cells form at the end of Meiosis II and how many chromosomes do they contain?
17. In humans, meiosis occurs in the _____ and in the _____ producing cells called _____.
18. Is there ever a case in sexual reproduction where offspring can be genetically alike? Explain.
19. What is the evolutionary advantage of sexual reproduction?