

Name: _____ Period: _____

5.2 Meiosis Cell Division Review

1. _____ is the name given to sex cells; egg and sperm cells.
2. _____ is the name given to a cell that is an egg cell fertilized by a sperm cell.
3. What is the difference between a haploid and a diploid cell?
4. What are homologous chromosomes? Give an example.
5. What is the purpose of meiosis?
6. What event occurs in prophase I of meiosis that did not occur in prophase of mitosis? Diagram what happens in the event. Why is this event so important?
7. Anaphase I splits apart _____ and anaphase II splits apart _____.

For each of the following, indicate if the statement is true of mitosis or meiosis.

- _____ 11. This type of cell division results in cells that are different from the mother cell.
- _____ 12. This type of cell division results in cells that have half the number of chromosomes as the parent cell.
- _____ 13. This type of cell division occurs in all cells of the body, but not in the formation of sex cells (sperm & egg)
- _____ 14. In this type of cell division, the cross-over event occurs.
- _____ 15. This type of cell division occurs in the formation of sex cells.
- _____ 16. This type of cell division produces cells that are identical to each other.

17. Identify whether the following occurs during Meiosis I or Meiosis II:

- _____ Sister chromatids are separated
- _____ Homologous (parent) chromatids are separated
- _____ Genetic variation is created
- _____ Two genetically different/unique haploid cells are created
- _____ Four genetically different/unique haploid cells are created

18. Describe the two ways in which genetic variation is achieved in sexual reproduction and meiosis.

19. Identify the following phases of Meiosis I or Meiosis II (note: not all of the phases are shown, but be ready for any phase to show up!)









