

Mitosis vs Meiosis Assignment

In each blank, indicate if it is meiosis or mitosis being described:

- 1. Mit No pairing of homologous chromosomes takes place
- 2. Mit Produces two daughter cells
- 3. Mit Takes place with one celled organisms
- 4. Meio Forms gametes in eukaryotic cells
- 5. Meio The chromosome number is reduced by half
- 6. Meio Forms egg and sperm cells
- 7. Mit Occurs in most types of eukaryotic cells
- 8. Meio Maintains the chromosome number
- 9. Meio Homologous chromosomes are paired
- 10. Meio Two divisions take place
- 11. Meio Four daughter cells are produced
- 12. Mit Daughter cells are identical to parent cell
- 13. Meio Daughter cells are different from each other and from parent cell
- 14. Mit One division takes place

15. What two events determine the number of chromosomes that make the outcome of mitosis and meiosis so different? 2 divisions = 1 mark

Prophase I Homologs pair
Anaphase I Homologs split OR No Chromosome replication during Interkinesis

16. Describe the embryo resulting from sexual reproduction if meiosis resulted in the same number of chromosomes as with mitosis.

Each gamete would have a diploid number = offspring would have 2x as many as parent.

17. Why is crossing over important in sexually reproducing organisms?

Increases variety + diversity by allowing alleles to be exchanged w/in a homologous pair.