

Answer Questions

On the lines provided, under the appropriate number of vertices (1 through 3) vertices (2), including mitophase in the parent organism.

- 1. 4th mitophase I, _____ karyokinesis chromosome lining in the center of the cell
- 2. 2nd mitophase I, _____ spindle fibers pull homologous pairs to ends of the cell
- 3. 2nd mitophase II, _____ 4 haploid (2n) daughter cells form
- 4. 2nd mitophase _____ cells undergo a round of DNA replication
- 5. 1st mitophase II, _____ cross chromosomes separate from each other
- 6. 4th mitophase II, _____ 2 haploid (2n) daughter cells form
- 7. 1st mitophase I, _____ spindle fibers attach to the homologous chromosome pairs
- 8. 4th mitophase II, _____ individual chromosomes move to each end of the cell
- 9. 2nd mitophase I, _____ crossing-over (2 and 3 only)

20. Compare the number and type of cells that result from mitosis vs. meiosis. Mitosis 2 diploid cells, that are somatic cell pairs that are not gametes and identical to each other and to the parent cell.

Meiosis makes 4 haploid cells that are gametes and are all different from each other and from the parent cell.

21. How do the genetic contents of cells resulting from mitosis and meiosis differ? Mitosis are identical, while meiosis is not identical.

22. If a diploid cell containing 20 chromosomes undergoes mitosis, how many chromosomes will each daughter cell have? 20

Read each statement, then on the line write down the phase of mitosis or meiosis that the action occurs. If the action occurs in both, write both. The line can be from the top.

- 1. _____ mitophase I separates karyokinesis chromosome lining in the center of the cell
- 2 mitophase II separates; mitophase mitosis _____ the individual chromosomes move apart.
- 3 mitophase I separates spindle fibers pull homologous pairs to ends of the cell
- 4. Mitophase II separates 4 haploid (2n) daughter cells form
- 5. mitophase mitosis and mitosis cells undergo a round of DNA replication
- 6 mitophase mitosis; mitophase II separates (no pairs) _____ the chromosomes that separate the middle of the cell.
- 7. mitophase I, Mitophase II separates; mitophase mitosis _____ Chromosomes become visible.
- 8 mitophase mitosis; mitophase II separates cross chromosomes separate from each other
- 9. _____ mitophase I separates 2 haploid (2n) daughter cells form
- 10. _____ mitophase II separates; mitophase mitosis cross chromosomes separate and individual chromosomes.
- 11. Mitophase I and II separates; Mitophase mitosis _____ Nuclear envelope is broken.
- 12. _____ mitophase I separates spindle fibers attach to the homologous chromosome pairs
- 13. _____ mitophase II separates; mitophase mitosis individual chromosomes move to each end of the cell
- 14. mitophase I and II separates; mitophase mitosis _____ The nuclear envelope and the nuclear envelope breaks down.
- 15. _____ mitophase II separates; mitophase mitosis _____ Each chromosome is connected to spindle fibers.