

Meiosis Worksheet

On the lines provided, order the different stages of meiosis I THROUGH meiosis II, including interphase in the proper sequence.

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| 1. 4 th metaphase I | homologous chromosome line up in the center of the cell |
| 2. 5 th anaphase I | spindle fibers pull homologous pairs to ends of the cell |
| 3. 9 th Telophase II | 4 haploid (N) daughter cells form |
| 4. 1 st interphase | cells undergo a round of DNA replication |
| 5. 7 th anaphase II | sister chromatids separate from each other |
| 6. 6 th Telophase I | 2 haploid (N) daughter cells form |
| 7. 3 rd Prophase I | spindle fibers attach to the homologous chromosome pairs |
| 8. 8 th anaphase II | individual chromatids move to each end of the cell |
| 9. 2 nd prophase I | crossing-over (if any) occurs |

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

11. How do the genetic contents of cells resulting from meiosis and mitosis differ?
 Mitosis are identical, while meiosis is not identical.
12. If a diploid cell containing 20 chromosomes undergoes mitosis, how many chromosomes will each daughter cell have?
 20

Read each statement from the list on the left with the stage of mitosis or meiosis that the cells reach. If the cells reach a cell, write cell. The list on the left is for you.

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| 1. _____ anaphase I | homologous chromosomes line up in the center of the cell |
| 2. _____ anaphase I | the individual chromosomes move apart |
| 3. _____ anaphase I | spindle fibers pull homologous pairs to ends of the cell |
| 4. _____ anaphase I | 4 haploid daughter cells form |
| 5. _____ anaphase I | cells undergo a round of DNA replication |
| 6. _____ anaphase I | the chromosomes line up across the middle of the cell |
| 7. _____ anaphase I | chromosomes become visible |
| 8. _____ anaphase I | two daughter cells form from each other |
| 9. _____ anaphase I | 4 haploid daughter cells form |
| 10. _____ anaphase I | two daughter cells separate the individual chromosomes |
| 11. _____ anaphase I | forming spindle fibers |
| 12. _____ anaphase I | spindle fibers attach to the homologous chromosome pairs |
| 13. _____ anaphase I | individual chromosomes move to each end of the cell |
| 14. _____ anaphase I | the nuclear envelope and the nuclear spindle break down |
| 15. _____ anaphase I | two chromosomes is combined to a single one |