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Amoeba Sisters Video Select Recap: Mitosis vs. Meiosis Comparison

In the blank white spaces, create your own illustrations of mitosis (on left in each box) or meiosis (on right in each box) for an organism with six chromosomes. Some have been completed for you. Then, write 2 comparison sentences comparing the two stages.

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| <p>PROPHASE PROPHASE I</p> <p>11. Comparison: Prophase I has homologous pairs. However, prophase does not.</p> | <p>METAPHASE METAPHASE I</p> <p>12. Comparison: Metaphase has the chromosomes up in the middle, Metaphase has but not in a single line.</p> |
| <p>ANAPHASE ANAPHASE I</p> <p>13. Comparison: In anaphase, the chromatids are separated. For Anaphase I, same thing but chromosomes.</p> | <p>TELOPHASE TELOPHASE I</p> <p>14. Comparison The chromosomes are opposite</p> |

15. What is the splitting of the cell's cytoplasm that occurs after telophase called? Cytokinesis
16. Did crossing over occur in both mitosis, meiosis, or both? Both When? Crossing over

Now to continue on to meiosis III Create your own illustrations to show your understanding of meiosis II.

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|------------------------------|-------------------------|------------------------|-------------------------|
| <p>Prophase II (Example)</p> | <p>17. Metaphase II</p> | <p>18. Anaphase II</p> | <p>19. Telophase II</p> |
|------------------------------|-------------------------|------------------------|-------------------------|

20. What are 3 differences between the daughter cells made from mitosis vs. the daughter cells made from meiosis?
- The daughter from mitosis are identical, but from meiosis are not the same.
 - Males make sperm cells, females make egg cells.
 - Mitosis can make brand new organisms

