Sci 9 **Meiosis Review**

Complete the diagram starting with two chromosomes in each parent cell.

Mitosis Mieosis





1. What is the end result of mitosis?
2. What is the end result of meiosis?
3. Compare the *chromosome number* of the parent cell with that of each of the two daughter cells after mitosis.
4. Compare the *chromosome number* of the parent cell with that of each of the four gamete cells after meiosis.
5. Compare the genetic information of the parent cell with that of each daughter cell after mitosis. Do the same after meiosis.
6. Can all cells undergo meiosis? What specialized cells are made by meiosis?
7. What are somatic cells and what process do they use to reproduce?
8. Compare somatic cells and sex cells in terms of chromosome number.
9. What does haploid and diploid mean?
10. What is crossing over? When does it occur?
11. What is the value of crossing over to the long-term survival of a species?
12. What is the importance of mitosis to the organism?
13. What is the importance of meiosis to an organism?
14. You have 46 chromosomes in each of your somatic cells. If you cut your arm, how many chromosomes would be in each newly formed skin cell?
15. How many chromosomes are in each gamete cell? Are the gamete cells produced by mitosis or meiosis?