**Comparing Mitosis and Meiosis**

Using the diagram provided, answer the following questions **in complete sentences**.

1. If we are looking at a human, how many chromosomes are in the cell to begin with for each process?
2. Is the DNA duplicated before the start of mitosis? Meiosis?
3. Does the nuclear membrane breakdown in both processes? How many times for each process?
4. Does the mitotic spindle form during each process? If so, how many times?
5. A) What is the special event that happens during prophase 1 of meiosis called where homologous pairs exchange genetic information?

B) Does this event happen during mitosis? Why or why not?

1. How many times does the cell divide in each process?
2. Describe the end products of each process. Be sure to include how many new cells are produced and how they compare genetically to the original cell they came from, as well as to each other.