



Amoeba Sisters | Video Recap

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Amoeba Sisters Video Select Recap: Mitosis vs. Meiosis Comparison

The cells that undergo mitosis and meiosis have some similarities and some differences. For the following statements, decide whether you should circle mitosis, meiosis, or both

1. In humans, the starting cell in this process has 46 chromosomes.

MITOSIS MEIOSIS BOTH

2. A stomach cell would be an example of a starting cell in this process.

MITOSIS MEIOSIS BOTH

3. The starting cell in this process will have twice the number of chromosomes as the final daughter cells.

MITOSIS MEIOSIS BOTH

4. The starting cell in this process will be diploid.

MITOSIS MEIOSIS BOTH

5. The starting cell in this process will be identical to the daughter cell.

MITOSIS MEIOSIS BOTH

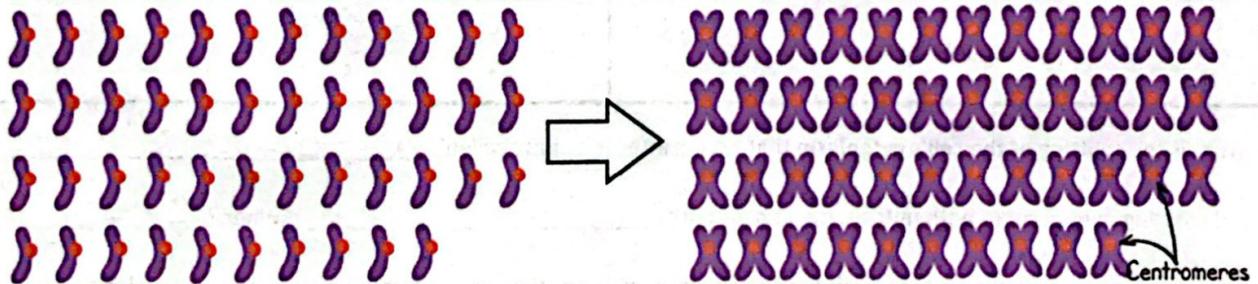


Example of starting cell in mitosis: skin cell

Example of starting cell in meiosis: primary spermatocyte (males) or primary oocyte (females)

6. The starting cell must duplicate its chromosomes in interphase before mitosis or meiosis can begin. Does this change the number of chromosomes? Chromatids? Both? How many of each would you expect in a human cell after interphase?

It does not change the # of chromosomes. However, there would be a change in chromatids. After interphase, you can expect 46 chromosomes and 92 chromatids.



Consider a mosquito with six chromosomes for the next questions. This info will be used for illustrations on the next page.

7. What would the function of mitosis be in the mosquito? Prophase, metaphase, anaphase, telophase

8. How many chromosomes would you expect to be in the daughter cells of the mosquito after mitosis? 46

9. What would the function of meiosis be in the mosquito?

Goes through prophase, metaphase, anaphase, and telophase twice.



10. How many chromosomes would you expect to be in the daughter cells of the mosquito after meiosis? _____



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