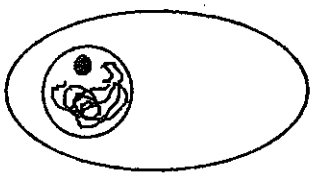
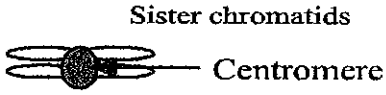
Mitosis Notes

Cell division occurs in a series of stages, or phases.

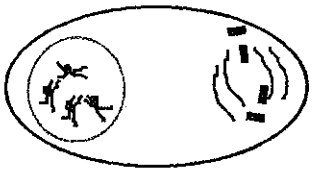
1st: INTERPHASE



- Chromosomes are copied (# doubles)
- Chromosomes appear as threadlike coils (chromatin) at the start, but each chromosome and its copy (sister chromosome) change to sister chromatids at end of this phase

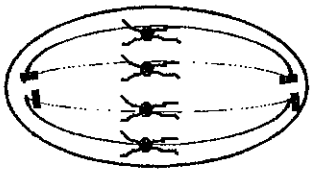


2nd: PROPHASE

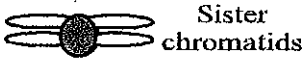


- Mitosis begins (cell begins to divide)
- Centrioles (or poles) appear and begin to move to opposite ends of cell
- Spindle fibers form between the poles

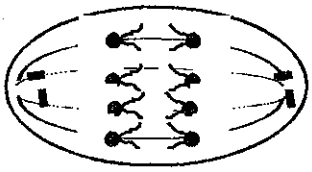
3rd: METAPHASE



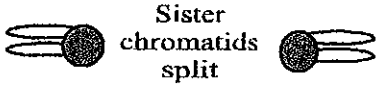
- Chromatids (or pairs of chromosomes) attach to the spindle fibers



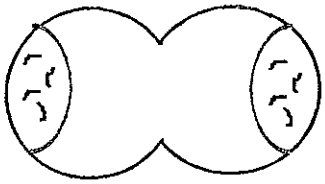
4th: ANAPHASE



- Chromatids (or pairs of chromosomes) separate and begin to move to opposite ends of the cell

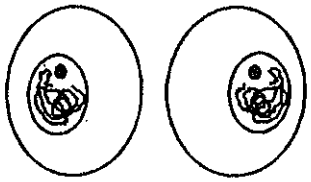


5th: TELOPHASE



- Two new nuclei form
- Chromosomes appear as chromatin (threads rather than rods)
- Mitosis ends

6th: CYTOKINESIS



- Cell membrane moves inward to create two daughter cells - each with its <u>own nucleus</u> with <u>identical chromosomes</u>