

1 Interphase

- The cell grows and the number of organelles increases.
- The DNA in the nucleus is copied.



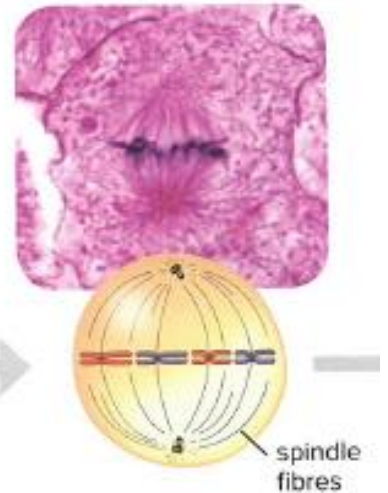
2 Phase 1 of mitosis (prophase)

- The nuclear membrane begins to disappear.
- DNA condenses into duplicated chromosomes. Each contains two copies of the same DNA.



3 Phase 2 of mitosis (metaphase)

- Structures called spindle fibres guide chromosome movement.
- Chromosomes line up along the middle of the cell.



4 Phase 3 of mitosis (anaphase)

- The copies of DNA are separated and go to each end of the cell.



5 Phase 4 of mitosis (telophase)

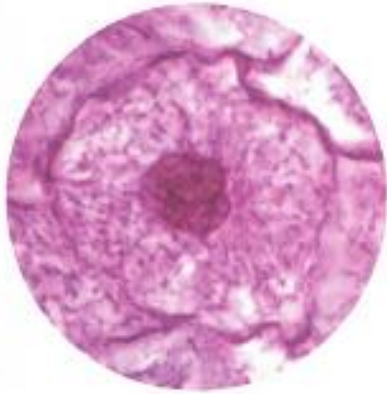
- Two nuclei form and each nucleus contains a complete copy of the cell's DNA.



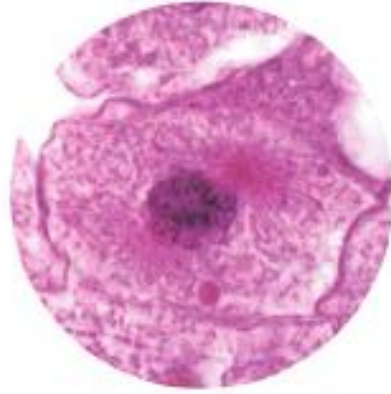
6 Cytokinesis

- The cytoplasm and organelles are divided, and two separate cells form.
- The cells then begin interphase.

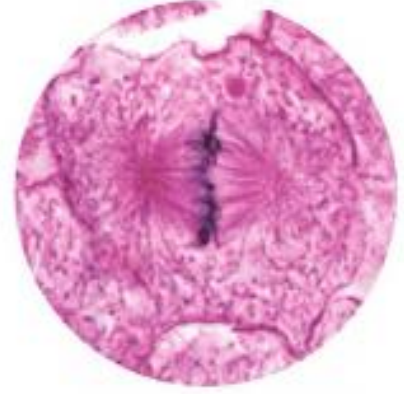




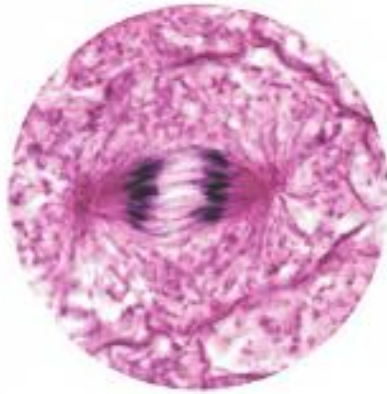
interphase



prophase



metaphase



anaphase

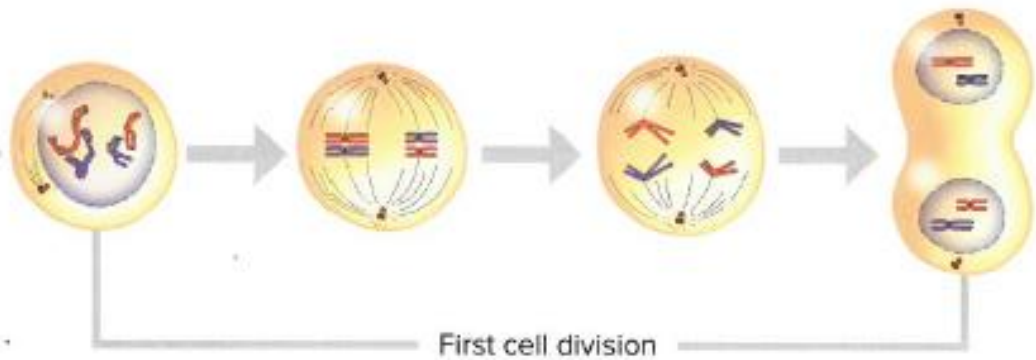


telophase



cytokinesis

Growth and Development (interphase)



First cell division

prophase II

- The nuclear membrane begins to disappear.
- DNA exists as chromosomes.

metaphase II

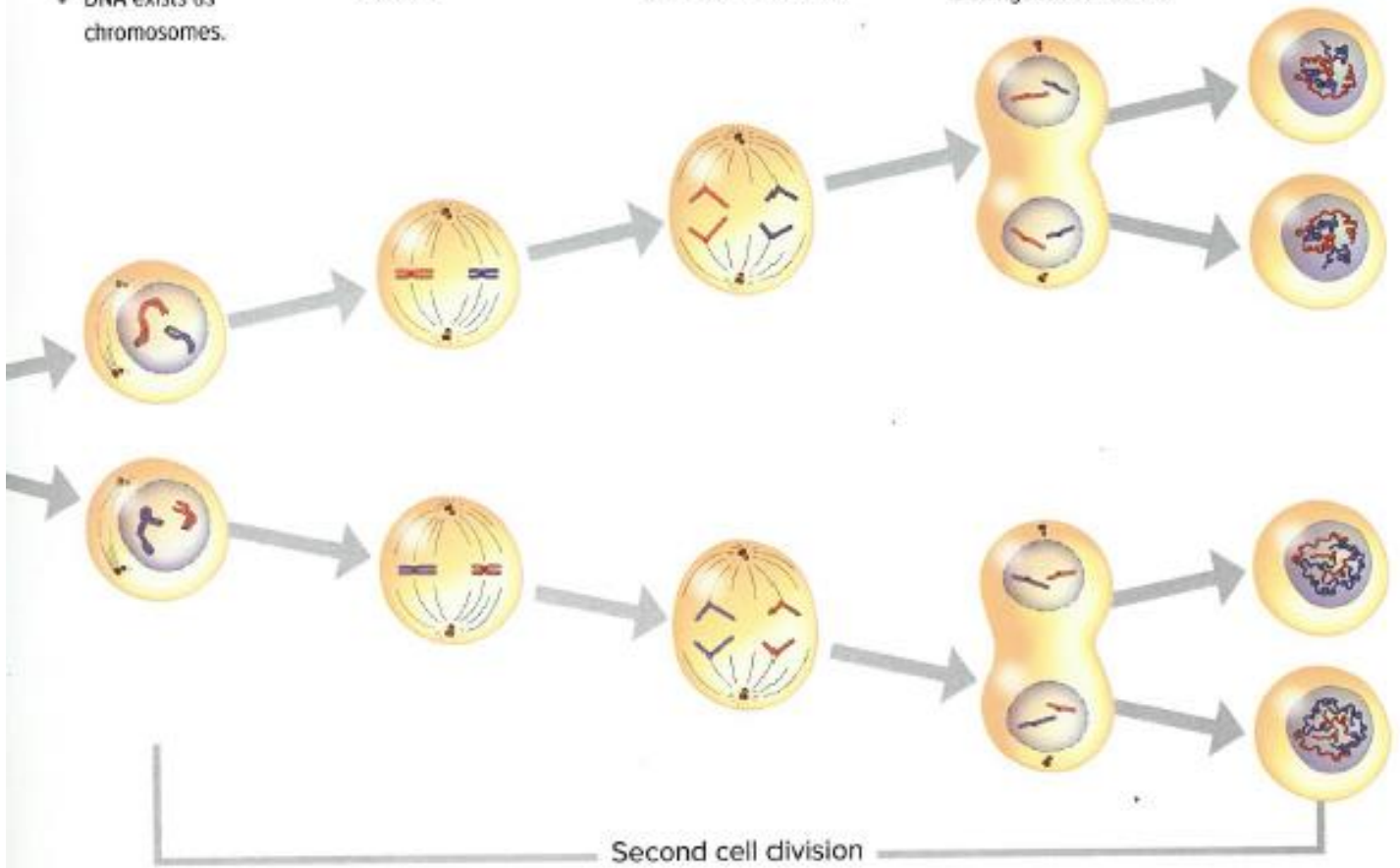
- The chromosomes line up along the middle of the cell.

anaphase II

- The copies of DNA are separated and go to each end of the cell.

telophase II

- Four nuclei form.
- The cells divide, forming four new cells.



Second cell division