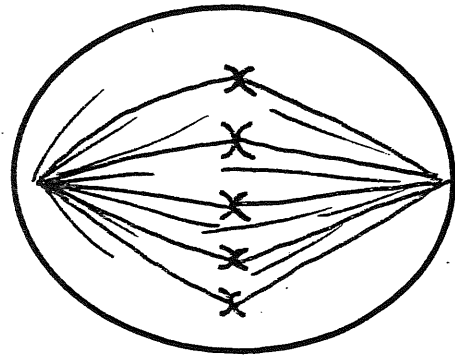


- chromatin is duplicated, then condensed



- Spindle fibres contract and shorten, pulling centromeres apart

- Chromosomes line up along the middle of the cell

- Nuclear membrane and nucleolus begin to breakdown and disappear

### Anaphase

- New nuclear membrane begins to form around each set of chromosomes to form 2 new nuclei

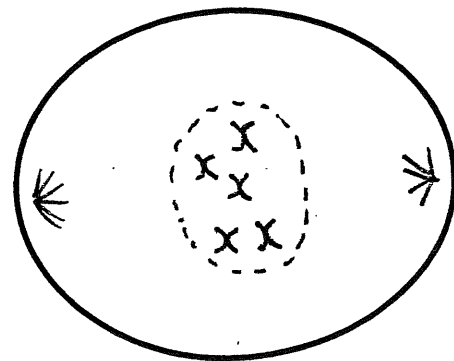
- Duplicated chromosomes condense and shorten to the point they can be seen with a microscope

In plant cells, a cell wall forms between the 2 nuclei, dividing the cytoplasm and other organelles to form 2 new identical daughter cells

### Cytokinesis

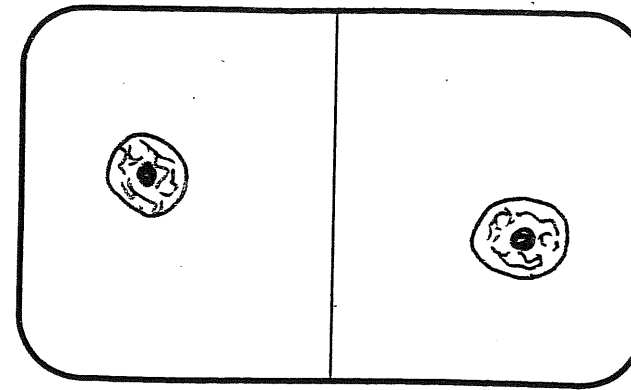
- The cell spends most of its life in this phase

### Metaphase



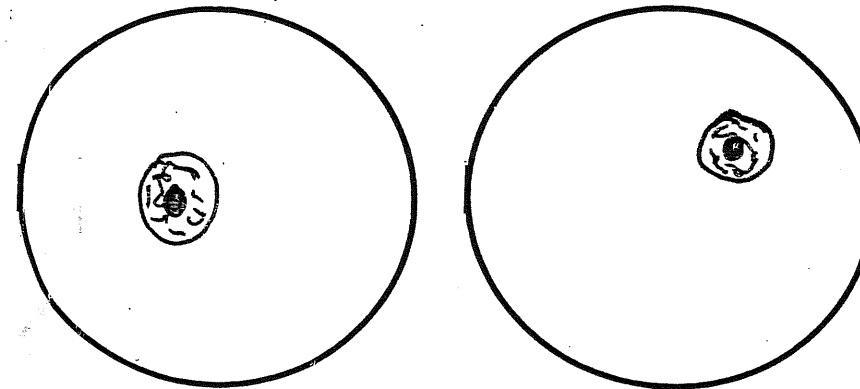
- The cell now has 92 chromatids arranged in 46 pairs

- Chromosome strands separate and move to opposite ends along spindle fibres



- Mitotic spindle disappears

- Nuclear membrane has completely disappeared



- Chromosomes begin to lengthen, become less condensed and are no longer visible under a microscope

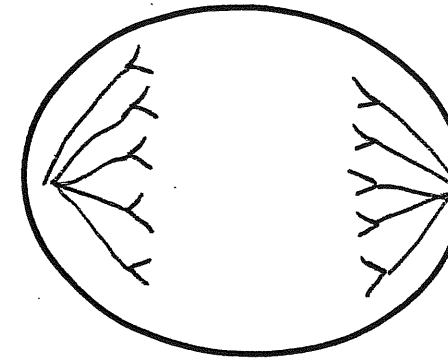
### Telophase

### Mitosis

- Mitotic spindle forms

- Cell performs its normal functions, grows and prepares to divide

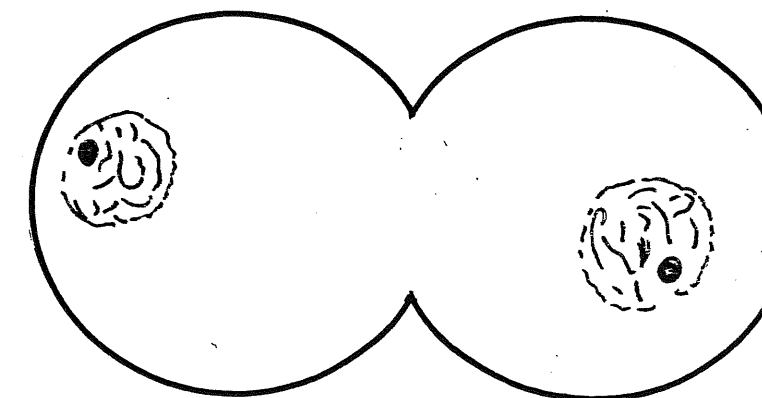
### The Cell Cycle



In animal cells, the cell membrane pinches in to divide the nuclei, cytoplasm and other organelles to form 2 new identical daughter cells

### Prophase

- Chromosomes arrive at opposite ends of the cell



### Interphase