

① Cell Division: $1 \text{ cell} \rightarrow 2 \text{ cells}$ (parent \rightarrow daughter)

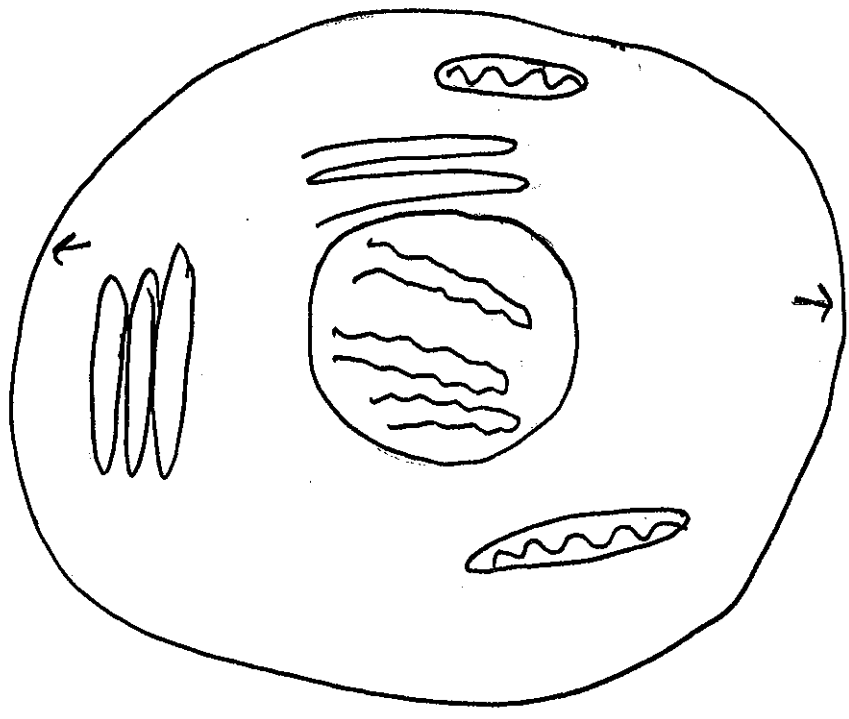
- process of allowing organisms grow + repair tissues
- think growing up, healing a cut, etc.

I Interphase

$G_1 \Rightarrow$ normal cell processes (some may stay here)

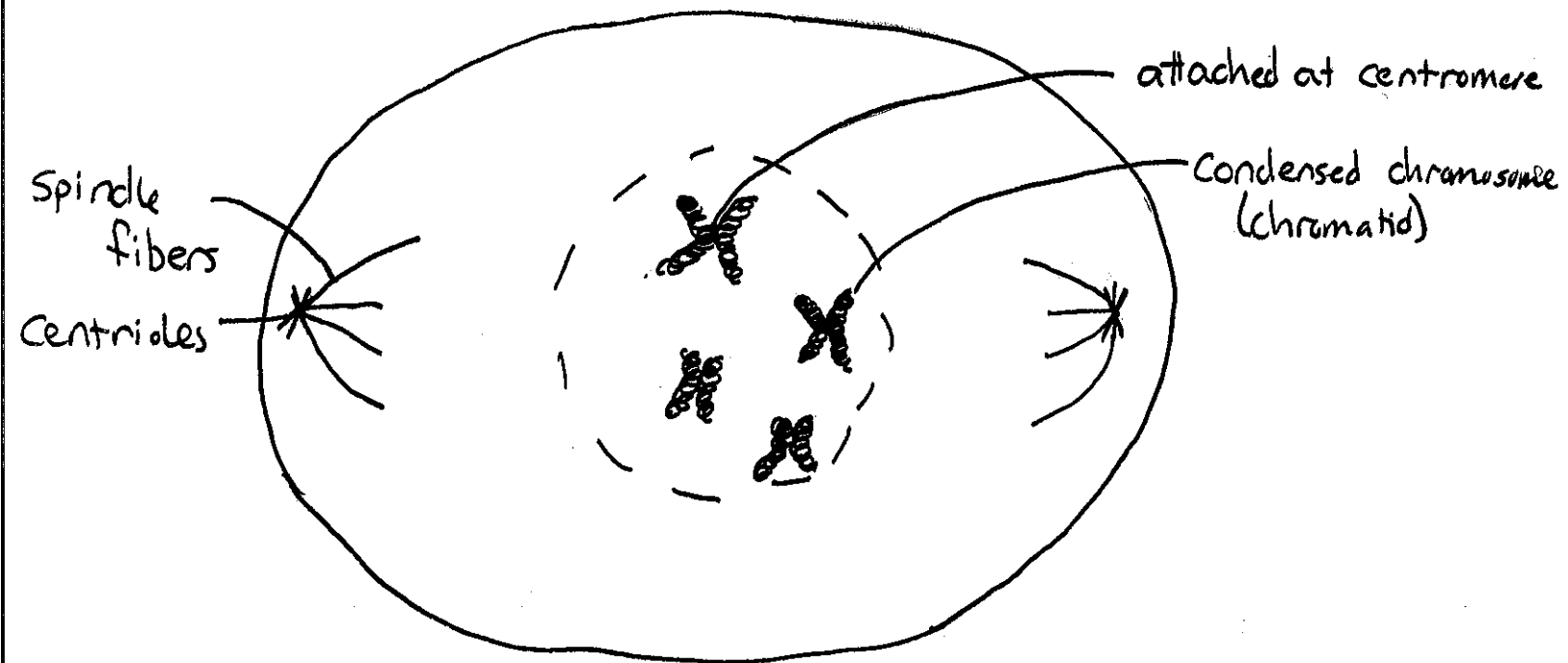
S (synthesis) \Rightarrow DNA Replication

$G_2 \Rightarrow$ organelle multiplication \rightarrow preparing for cell division



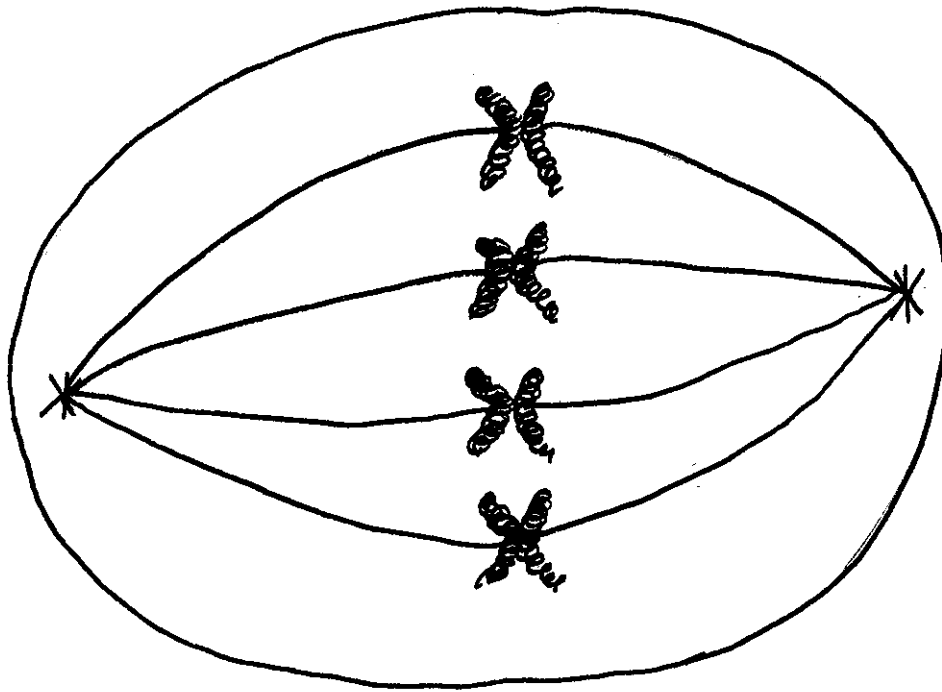
P/rophase

- Chromosomes condense (attach to centromere)
- nuclear membrane starts to break up
- Spindle fibers form at opposite sides of cell



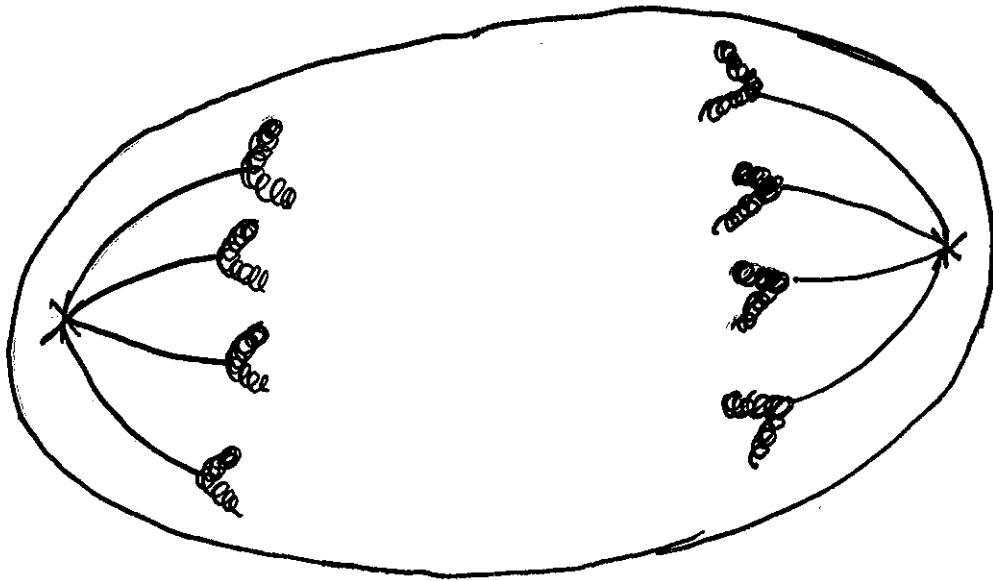
Metaphase

- chromosomes (chromatid) move to equator due to attachment of spindle fibers to the Centromers
- Nuclear membrane completely gone



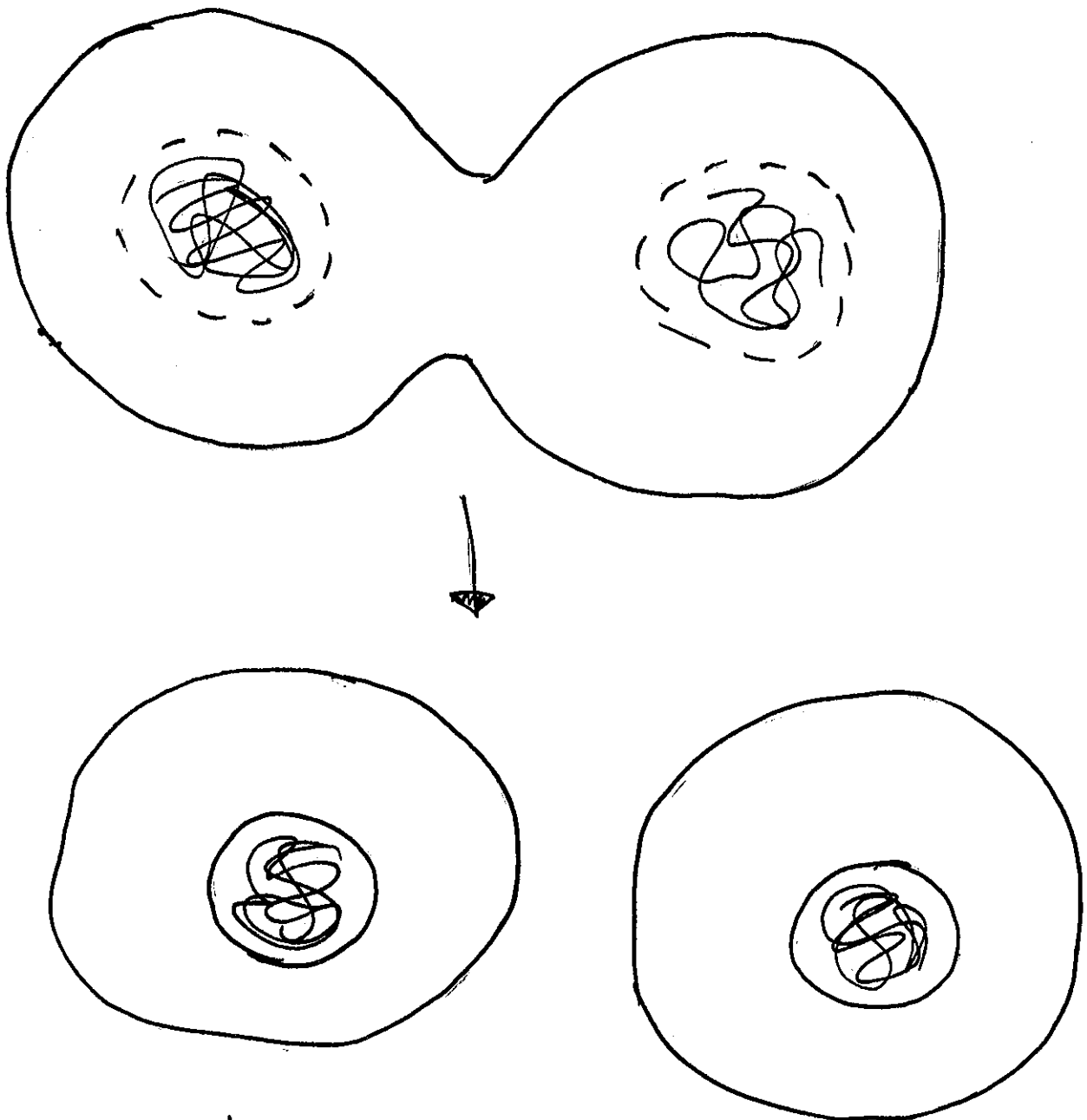
Anaphase

- Spindle fibers shorten pulling sister chromatids apart to separate sides of cell
- Each side has equal #'s of chromosomes



Telophase

- Cytokinesis: pinching of cell membrane
- duplicated cell organelles move to separate sides
- Nuclear membrane starts to re-form
- Chromosomes unwind



two identical sister chromatids