Meiosis = Meiosis I + Meiosis II (just like mitosis)

interphase

$2N = 4$

Prophase I
- chromatin condense into chromosomes
- nuclear membrane dissolves
- centrioles appear
- homologous chromosomes find their "mate" & crossing over occurs

Crossing over = Genetic Diversity

Metaphase I
- line up double file.
Anaphase I

Pairs split apart from each other

Telophase I

Cytokinesis

$2N = 4$ having pairs

$1N = 2$ no pairs
Prophase II

- nuclear membrane that reformed in telophase I dissolves.

Metaphase II

- line up single file.
- centrioles send out spindle

Anaphase II

- chromosomes pulled apart.
- Replicated \( A^\times A^\times B^\times B^\times \) \( a^\times a^\times b^\times b^\times \)
- unreplicated \( A^\times A^\times B^\times B^\times \) \( a^\times a^\times b^\times b^\times \)
Telophase II

- Nuclear membrane reforms

Cytokinesis - 4 IN daughter cells.

Oogenesis - 1 egg + 3 polar bodies

Spermatogenesis - 4 sperm

23 Chromosomes (No pairs)
N = 23

23 Chromosomes (No pairs)
N = 23