

Anaphase II: Centromers split and the spindles pull the chromatids to the poles.

Parent cell

Diploid (complete set of chromosomes) Gametes

Parent cell: Chromosomes replicate

Prophase I: Crossing over can occur during this phase (increases variation). Chromosomes condense. Nuclear envelope breaks down. Homologous chromosomes pair up. Spindle fibers form.

Metaphase I: Homologous (chromosomes contain same information) chromosomes line up at the equator.

Anaphase I: Homologous chromosomes move to opposite poles of the cell.

Telophase I: Chromosomes moved to poles. Spindle disappears. Cell divides.

Prophase II: Nuclear envelope breaks down. (not shown) Spindles fibers form. Chromosomes condense.

Metaphase II: Chromosomes line up at the equator.

Telophase II: Chromosomes uncoil. Nuclear envelope reforms. Four haploid cells are formed.

Interphase II. Not shown. Chromosomes uncoil. They do not replicate again. Nuclear envelope reappears. Two haploid cells are formed.

each leg of the  represents a sister chromatid

