

## Mitosis

Happens in somatic cells

Only one nuclear division

Cytokinesis happens once

Division of chromosomes is involved

Results in diploid cells

Two daughter cells are made after division

Homologous chromosomes doesn't pair up

Helps growth and repair in the organism and for asexual reproduction

Daughter cells are identical to parent cell and to each other

## Meiosis

Happens in sex cells

Two nuclear division--Meiosis I and Meiosis II

Cytokinesis usually happens twice

Two pairs of homologous chromosomes are separated during meiosis I and then division of chromosomes in Meiosis II

Results in haploid cells

Four daughter cells are made

Homologous chromosomes pair up during Prophase I

Used for sexually reproductive organisms during sexual reproduction

Daughter cells contain recombined chromosomes due to crossing over

Initiates cell division

Meiosis II is similar to Mitosis

Chromosomes are replicated during interphase

Centrioles are present in both for form spindle fibers

Homologous chromosomes and/or pairs are separated via spindle fibers