

# Cell Cycle Cheat Sheet

by Kyu via cheatography.com/179262/cs/37447/

#### Five phases of mitosis

Prophase - Chromosomes condense and Chromatids connect at centromeres.

Metaphase - Chromatid pairs align at metaphase plate.

Anaphase - Daughter chromosomes separate.

Telophase - Nuclear envelopes reform.

Cytokinesis - Division of the cytoplasm to form two identical daughter cells.

Mitosis is the process of cell division which results in the production of two daughter cells

from a single-parent cell.

#### Phases in Meiosis

Fliases III Meiosis	
Meiosis 1	Meiosis 2
Prophase 1 - Each chromosome duplicates and remains closely associated. These are called sister chromatids.	Prophase 2 - DNA does not replicate.
Metaphase 1 - Chromosomes align at the center of the cell.	Metaphase 2 - Chromosomes line up at the center of the cell.
Anaphase 1 -	Anaphase 2 -

Anaphase 1 - Anaphase 2 - Chromosome pairs Centromeres separate with sister divide and sister chromatids remaining chromatids together. chromatids to each pole.

Telophase 1 - Two Telophase 2 -

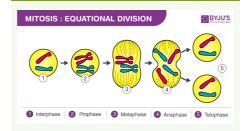
Cell division is

complete.

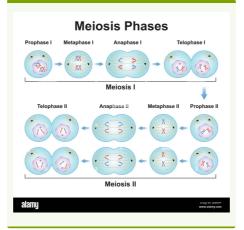
daughter cells are formed with each daughter containing only one chromosome of the chromosome pair.

Four haploid daughter cells are formed after the process.

## Picture of the Mitosis cycle



### Picture of the Meiosis Cycle



## **Differences in Mitosis and Meiosis**

Mitosis	Meiosis
Asexual	Sexual
Cell divides once	Cell divides twice
Two daughter cells	Four haploid daughter cells
Genetic information is identical	Genetic information is different

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# The Cell life Cycle

Cell Division - he reproduction of cells

Apoptosis - genetically programmed death cells

Mitosis - the nuclear division of somatic cells

Meiosis - the nuclear division of sex cells