

# Mitosis vs. Meiosis

	Mitosis	Meiosis
Definition		
Number of times DNA is copied		
Number of times the cell divides		
Number of cells at the start		
Number of cells at the end		
Number of chromosomes at the start		
Number of chromosomes at the end		
Genetically		
Purpose		
Centromeres split		
Steps		
Advantages as a reproductive strategy		
Disadvantages as a reproductive strategy		

\_\_\_\_\_ is a method of cell reproduction that produces \_\_\_\_ identical daughter cells. Chromosomes are replicated \_\_\_\_\_ prior to mitosis and sister chromatids are split at the centromere during \_\_\_\_\_, dividing them equally between the new genetically \_\_\_\_\_ cells. Making exact copies helps multicellular organisms \_\_\_\_\_, \_\_\_\_\_, and \_\_\_\_\_. It also helps unicellular organisms reproduce.

# Mitosis vs. Meiosis

An advantage of reproducing by mitosis is \_\_\_\_\_.

A disadvantage of reproducing by mitosis is \_\_\_\_\_.

\_\_\_\_\_ is a method of cell reproduction that produces \_\_\_ different cells.

Chromosomes are replicated \_\_\_\_\_ prior to meiosis. The cell then divides \_\_\_\_\_.

This means the cells produced by meiosis have \_\_\_\_\_ the number of chromosomes compared to the number at the start. Because of the separation of homologous chromosomes during Anaphase I and crossing over, the cells are genetically

\_\_\_\_\_. In order to use the cells produced by meiosis to form a diploid organism, two cells must fuse in a process known as fertilization. An advantage of reproducing by

meiosis and fertilization is \_\_\_\_\_.

A disadvantage of reproducing by meiosis and fertilization is \_\_\_\_\_.