

Name:

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Period

**Biology: Summarizing Mitosis and Meiosis**

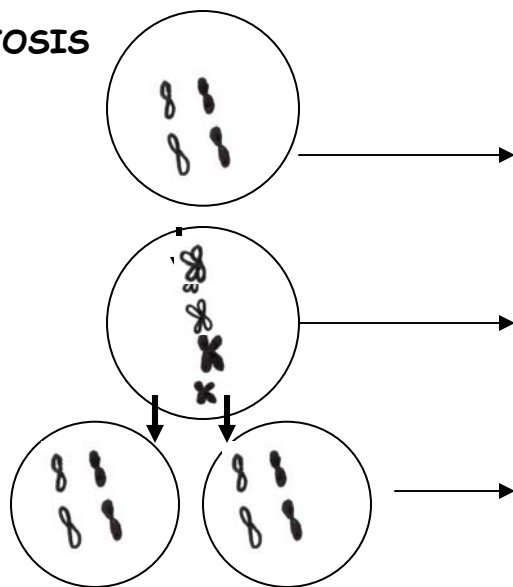
Keeping track of the number of chromosomes during mitosis and meiosis can be confusing. Mitosis takes place in nonreproductive cells to generate new cells, and in asexually reproducing organisms to produce offspring (in plants called vegetative propagation). Meiosis occurs in sexually reproducing organisms to create gametes, or eggs and sperm. This process is also referred to as gametogenesis. Eggs and sperm each contain one set (N) of chromosomes. When they fuse during fertilization, a 2N (diploid) individual will result. Most organisms, like humans, are diploid and need two sets of chromosomes to develop. To practice understanding mitosis and meiosis, keep track of the N#, chromosomes, ploidy, and calculate the corresponding number of human chromosomes.

**N= haploid/ monoploid**

**2N= diploid**

**4N= tetraploid**

**MITOSIS**



#N	# of Chromosomes	PLOID	# Human Chromosomes
2N	4	Diploid	46

**MEIOSIS**

