

Mitosis Study Guide

1. Complete the chart below comparing haploid and diploid cells.

	Haploid	Diploid
Number of chromosomes	23	46
Found in each body type of cell division	Sperm and egg cells	Most body
Type of cell division needed to produce each type	Mitosis	Mitosis

- Why is it essential that somatic cells undergo mitosis rather than meiosis?
 - Mitosis maintains chromosome number. The do not want just that cells to have half the number of chromosomes.
- Why is it essential that reproductive cells undergo meiosis rather than mitosis?
 - In reproduction, sperm and egg are joined. Meiosis creates a cell with half the number of chromosomes so that when both are joined they will have the correct number of chromosomes and so more.

2. Complete the following chart.

	Mitosis	Meiosis
1 cell chromosome in parent cell	46	46
# daughter cells	2	4
Daughter cells haploid or diploid	Haploid	Haploid
Genetic similarity to parent cell	Identical	Not identical