

Cellular division – Reference Summary

Genes (DNA) are organized in chromosomes (chrs)

Body (somatic) cells are diploid (2n)

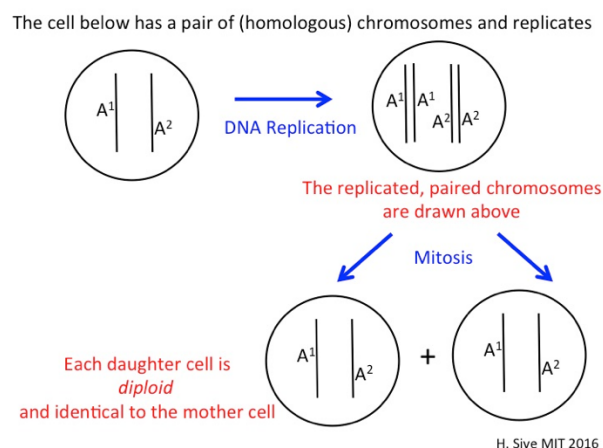
Each matching couple of chrs is called homologs or homologous chr

Normal somatic cells have 23 couples of chrs (46 in total, 22 autosomes and 1 sex chromosome)

Mitosis

Mitosis is the process of cell division by which 2 daughter cells are produced from 1 mother cell.

The daughter cells have the **same ploidy** and are **genetically identical** to both each other and the mother cell.



Meiosis

Meiosis is the process of cell division by which **4 gametes** are produced from **1 diploid mother cell**.

The gametes' ploidies are half of the mother cell's ploidy → gametes are **haploid** cells.

The gametes are **NOT** genetically identical to each other **NOR** to the mother cell.

Gametes are cells with half of the normal ploidy (haploid for humans). Examples of gametes are eggs (ova) and sperm cells.

The cell below has a single pair of chromosomes, undergoes meiosis

