Diploid vs. Haploid Cells

*Diploid Cell (2N)* = a cell with a complete set of chromosomes found in a somatic (body) cell. Somatic cells are all body cells except sperm and egg and all somatic cells are diploid. The diploid number of chromosomes must be an even number because chromosomes are found in Homologous Pairs.

Humans have a diploid number of 46. 2N=46

*Haploid (N)*= a cell with 1 chromosome from each homologous pair found in gamete cells. Gamete or sex cells are egg, sperm, pollen. The haploid number of chromosomes is 1/2 the diploid number.

Humans have a diploid number of 23. N=23
Human Somatic Cell

If Human Egg Cell

Mitosis

Mitosis

If Human Sperm Cell

Fertilization

Zygote

Mitosis