

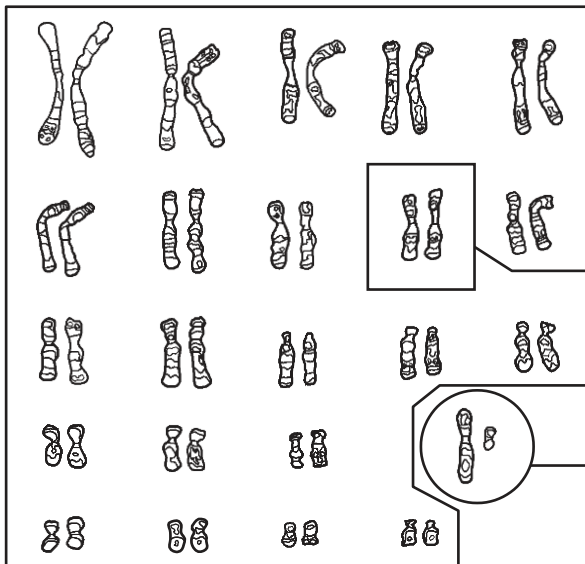
Somatic cells:

- Also called body cells; make up most of the body cells and organs
- Not passed on to children

Gametes:

- Sex cells; sperm and egg from testes and ovaries
- Passed on to children

Identify the items in the karyotype and explain their characteristics.



1. **Autosomes:** chromosomes that contain genes not directly related to the sex of an organism

Homologous Chromosomes:

2. Pair of chromosomes; inherit 1 from each parent; carry the same genes that may represent different alleles

3. **Sex Chromosomes:** Contain genes that directly control the development of sexual characteristics.

Diploid cell: has two copies of each of the chromosomes, one from mother and one from father; body cells typically diploid, result from mitosis

Haploid cell:

has one copy of each chromosome; gametes typically haploid, result from meiosis.

Mitosis

- makes genetically identical cells
- makes diploid cells
- takes place throughout organism's lifetime
- involved in asexual reproduction

Meiosis

- makes genetically unique cells,
- makes haploid cells,
- takes place at certain times in life cycle,
- involved in sexual reproduction