

3-25-14 Meiosis

- reduction division - takes DNA down to half.
- Provides "endless genetic variation"
- Sexual reproduction requires special cells made in meiosis.
- * Produces gametes that all differ from each other with respect to the combination of alleles they carry

Two major parts of meiosis

1. reduction division 2 copies of DNA become one
2. creates genetic diversity

4 haploid daughter cells

Asexual: fast and efficient, but its an identical copy
Sexual reproduction many costs only 1 benefit - genetic diversity.

3-28-14

Chromosomes

- packages of genes

Chromosomes are consistent

Same genes on the same location in all humans.

Males have a Y chromosome

1. Amniocentesis

Nondisjunction

- unequal distribution of chromosomes during meiosis.
- one cell will have 2 chromosomes the other has none.

Karyotype - a display of an individual's complete set of chromosomes.

cell division
disease

XO - Turner Syndrome

XXY - Klinefelter Syndrome

XYY - XY male

XXX - female XXX