Ch 13.4

Mutation is a source of genetic diversity

* Creates new alleles

Sexual Reproduction shuffles alleles

* Shuffles at complete random
  + This mean that there are 223 possible combinations with is 8,388,608
  + This happens because of the randomness of the metaphase plate
  + This makes sure that all each cell created doesn’t have homologous chromosomes
    - This is called independent assortment

**Recombinant Chromosomes** = Produced by crossing over

* This ensures that no chromosomes are identical

**Random Fertilization** = The diversity created by the fusion of an egg and a sperm cell