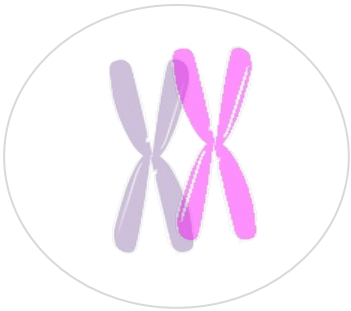
Name _____ Date ___/____/____

GENETICS

CROSSING OVER & INDEPENDENT ASSORTMENT - QUIZ

Based on: Independent Assortment and Crossing Over (tutorial) & Law of Independent Assortment (dictionary)

I: Fill in the gaps in the text using the words below:



chiasmata, *homologous chromosomes*, *meiosis*, *exchange*, *variation*

CROSSING OVER

During _____, the homologous chromosomes pair up. The points along the chromosomes that make contact with the other pair are called _____. These points of contact allow the _____ of genetic information between _____. This leads to further increase in genetic _____.

II: Match the items in column A with column B. Write the letters of your answers on the line before each number.

Column A

___ 1. The Augustinian monk who formulated the *Laws of Inheritance* based on plant breeding experiments
___ 2. Mendelian Law stating that for every pair of unit factors, each assorts independently into the newly formed gametes
___ 3. Formerly referred to as the "unit factors"
___ 4. Describes an organism that inherits two sets of chromosomes
___ 5. The plant that was used in breeding experiments to formulate the *Laws of Inheritance*
___ 6. The cell that forms after the union of male and female gametes
___ 7. The biological process wherein independent assortment occurs, and therefore, increases genetic diversity

Column B

A. Zygote
B. Law of Segregation
C. Law of Independent Assortment
D. Genes
E. Diploid
F. Haploid
G. Meiosis
H. Mitosis
I. Gregor Mendel
J. Pears
K. Peas