**HSPVA Academic Biology Review Sheet-Genetics and Meiosis**

**Test is on Tuesday, March 6th for 1st and 4th periods and on Wednesday, March 7th for 6th period**

**Meiosis:** Define the following terms:

1. Crossing over
2. Homologous chromosomes
3. Gametes
4. Haploid
5. Diploid
6. Know the important things that happen during prophase I
7. Know the significance of meiosis to sexual reproduction
8. The process of meiosis starts with \_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_ cell and ends with \_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_ cells.

PRACTICE PROBLEMS (to receive credit for this you need to explain your answer):



10.) In humans, the gene for polydactyly (having extra fingers or toes) is dominant over the gene

for the normal number of digits. If parents who are both homozygous dominant for polydactyly

have four children, how many of these children would most likely have extra fingers or toes?

(A) 0 (C) 3

(B) 2 (D) 4

**Genetics:**

Define the following terms (1-13):

1. Dominant
2. Recessive
3. Probability
4. Punnett square
5. Homozygous
6. Heterozygous
7. Genome
8. Variation
9. Karyotype
10. Genotype
11. Phenotype
12. Monohybrid cross
13. Dihybrid cross
14. Be able to work monohybrid crosses
15. Be able to work dihybrid crosses
16. Complete the practice genetics problems (with explanations)