

Unit 6 Review – Genetics & Heredity

Name: _____

Period: _____ Date: _____

1. *Define:*

- Chromosomes
- Genes
- Haploid
- Diploid
- Autosomal Chromosome
- Sex chromosomes
- Gametes
- Homologous chromosomes

2. How many chromosomes are found in human diploid cells? How many pairs?

3. How many chromosomes are found in human haploid cells? How many pairs?

4. List & describe the four kinds of point mutations.

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-
-

5. What type of mutation is represented below?

Original sentence: THE CAT CAN RUN FAR

- THE CAT CAN CAN RUN FAR
- THE CAT CNR UNF AR
- THE CAT CUR NAN FAR

6. Identify & describe all Chromosomal Mutations dealing with structure.



7. What information can you determine from a Karyotypes?

8. Identify & describe all Chromosomal Mutations dealing with the number.



9. Oompah's face color (F) has two variations, orange & blue. An orange faced homozygous dominant Oompah male mates with a blue faced female.

- What is the type of inheritance?
- What is the genotype of the female parent?
- What is the genotypic ratio of the offspring?
- What is the phenotype to "Ff"?

10. Fruit color (F) in plants is controlled by two alleles. I have two fruit plants outside that both produce orange colored fruit. When these two plants were crossed, of their offspring 25% produced red fruit, 50% produced orange fruit, & 25% produced yellow fruit.

- What is the type of inheritance?
- Determine the parent cross?
- What is the genotype of a plant that produces red fruit?
- What is the phenotype to "Ff"?

11. Barney & Betty are having another baby, & they hope it's a girl so their son Bam-Bam will have a sister. Albinism (A) is sex linked trait that runs in both their families; Barney is colorblind just like Betty's mother. If they were to have a daughter, in order for her to be an albino she would have to receive the allele from both parents.

- Is this trait either x-linked or y-linked?
- Is this trait dominant or recessive?
- What is Barney's genotype?
- What is the % chance of them having a daughter that is colorblind?

12. Michael Jackson's ex-wife was quoted saying that her kids were not fathered by him. You have to show evidence to support her claim. You know that Michael was type A, the mother is type B, child#1 is type O, & child#2 is type B.

- List Michael's possible genotypes.
- List Child#1 possible genotypes
- List Child#2 possible genotype
- Draw a punnett square for each child, proving Michael is the father.

13. A bird named the Lurkadoo lives near the northern coast of the U.S. Their feather color (F) can either white, or white feathers with blue tips. A male & a female Lurkadoo mate, both have white feathers with blue tips.

- What is the type of inheritance?
- What is the parent cross?
- What is the genotypic ratio?
- What is the phenotypic ratio?