Name _____ Date _____ Period _____

Chapter 6 Concept Review
B I O L O G Y

Directions: *Answer the following questions using your notes and textbook*

1. _____ Cells- body cells. Make up most of your _____ tissues and organs.

2. _____ Cells- cells in your reproductive organs, the ovaries and testes, can develop

into _____ (called sex cells) and form egg and sperm cellsj

3. Organisms differ from each other because of way genes are _____, not because they have different genes.

4. Your body has _____ pairs of chromosomes

5. _____- chromosome pairs 1-22 are called autosomes (are homologous)

6. _____ chromosomes- pair of chromosomes

7. _____ reproduction involves fusion of two gametes

8. _____ and _____ only have half usual number of chromosomes.

9. Diploid and Haploid cells

    a. Body cells are _____ (_____ copies of each chromosome)

    b. Gametes are _____ (have _____ copy of each chromosome)

10. Meiosis produces _____ haploid cells from _____ diploid cell

11. Mendel laid the groundwork for _____.

12. Mendel made three key decisions in his experiments

    a. Control over _____

    b. Use of _____ plants

    c. Observation of “either-or” _____ (only appear two alternate forms)

13. Two other key conclusions collectively called the law of _____.

    a. Organisms inherit two copies of each gene, one from each _____.

    b. Organisms donate only one copy of each gene in their _____ (two copies of each gene segregate, or separate, during gamete formation.

14. _____- a “piece” of DNA that provides a set of instructions to a cell to make a certain protein.

15. You have _____ alleles for each gene`

a. _____- means two of same allele

b. _____- two different alleles

16. _____- refers to genetic makeup of a specific set of genes

17. _____- physical characteristics of organism (white or purple flowers)

18. _____ alleles- allele that is expressed when two different alleles or two dominant alleles are present (use _____ letter to represent)

19. _____ alleles- only expressed if have two copies of recessive present (use _____- _____ letter to represent)

20. Monohybrid cross involves one trait

a. Homozygous dominant X Homozygous recessive

genotypic ratio = _____% white flowers

phenotypic ratio = _____% Ff

b. . Heterozygous X Heterozygous

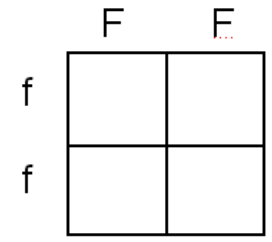
genotypic ratio = ____:____:____

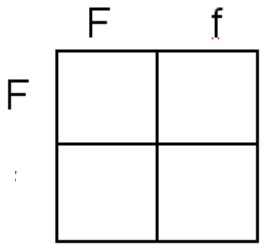
phenotypic ratio = ____:____

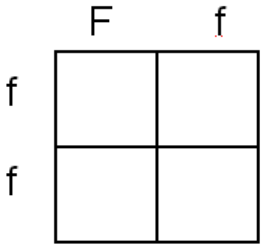
c. Heterozygous X Homozygous recessive

genotypic ratio = ____:____

phenotypic ratio = ____:____







21. The law of independent _____ states that allele pairs separate independently of each other during meiosis

22. _____ - the likelihood that a particular event will happen

23. Sexual reproduction creates _____ gene combinations

24. Sexual reproduction creates unique combination of _____.

25. _____ _____ - exchange of chromosome segments between homologous chromosomes during Prophase I of Meiosis I