Name _____Hour_____

Chapter 14-1 and 14-2 Test Review

Name the disorder for the following and give 2 symptoms/affects for each

1. Trisomy 18_____
2. Trisomy 21_____
3. Deletion Chrom #5_____
4. Genotype XXX_____
5. Genotype XO_____
6. Genotype XXY_____
7. Genotype XYY_____
8. Trisomy of chrom 13_____
9. What type of disorders are all of the above _____

Name the disorder for the following and give the # of the chromosome on which the affected gene is located.

10. Begins at age 30, mental deterioration _____chrom#_____
11. Lipids build up in brain _____chrom#_____
12. Excess mucus in lungs_____ chrom#_____
13. Excess cholesterol_____chrom#
14. Misshapen red blood cells _____chrom#_____
15. All of these disorders are _____disorders

Name the disorder for the following

16. Recessive-individual lacks a protein for normal blood clotting. _____
17. Recessive-progressive weakening and loss of skeletal muscle. Occurs later in childhood. _____
18. Dominant-Extreme hairiness on face. _____
19. Recessive- inability to see certain colors.
20. All of these disorders are _____disorders

Fill-ins

21. Which parent(s) can pass a sex linked trait to their daughter?_____
22. Which parent(s) can pass a sex linked trait to their son? _____
23. Name an autosomal disorder that is dominant. _____
24. Name a sex linked disorder that is dominant_____
25. Which can females be carriers of, a dominant or recessive sex-linked disorder?_____
26. Name an autosomal disorder that is Codominant_____
27. How do female cells "adjust" to the extra X chromosome? _____
28. What is a Barr body_____, What does it appear as in the cell? _____
29. Are Barr bodies found in males or females? _____
30. If you see a white cat with orange and black spots is it most likely male or female? _____Why? _____
31. During what process does non disjunction occur?_____

What can occur as a result of nondisjunction? _____ or _____

32. Does nondisjunction cause autosomal, sex-linked or chromosomal disorders? _____
33. If an individual has three copies of a chromosome at a location, it is known as _____. How many total chromosomes would this person have? _____
34. If an individual has only one copy of a chromosome at one location, it is known as_____ How many total chromosomes would this person have? ____

35. Is this sentence true or false? Down syndrome occurs when an individual has two copies of chromosome #21. _____
36. Why would an extra copy of one chromosome cause so much trouble? _____
    _____
37. What does a pedigree chart show? _____

Draw a pedigree following the trait albinism.

a. There are 3 generations.
b. The parents in the first generation have 3 children. The oldest is a boy and the other two are girls.
c. The oldest child is married with 2 children both girls.
d. Indicate by shading that I-2, II-4 and III-2 have albinism

e. Can this be a dominant trait? _____can this be a recessive trait? _____
   How do you know? _____
f. What is the genotype for the people who have albinism? _____
g. What is the genotype of the generation I parent who is not albino? _____
h. What is the genotype of all the people in generation II that are not albino?_____

38. To make a karyotype a biologist needs _____ of chromosomes taken during _____ phase of mitosis. She then needs to arrange them on a Karyotype form in order of _____. There should be _____ chromosomes at each location. She would be doing this to determine if this individual had any _____ disorders. There are 22 pairs of _____ chromosomes and _____ pair of sex chromosomes for a total of _____ pair or _____chromosomes for a normal human.
39. On a karyotype how can you determine the individual's gender? Females have _____ at location #23 and males have _____ at location #23.
40. What is the human diploid #? ____ What type of cells have this # of chrom? _____
41. What is the human haploid #? ____What type of cells have this # of chrom? _____
42. What was one of the first genes discovered by biologists? _____factor. Where was this gene discovered? _____
43. What are the two possible alleles for your blood groups? _____ and _____
44. What are the possible genotypes for someone with Rh+ blood? _____ or _____
45. What is the only possible for someone with Rh- blood? _____
46. Which is dominant +Rh or -Rh? _____
47. The great-great maternal (mom's side) of a boy was a carrier for color blindness, an X-linked disorder. His great uncle on his mother's side was colorblind, but his great uncle's father was unaffected. The boys mother has 2 brothers (1 colorblind, 1 unaffected) and 1 sister (unaffected). The boy's grandmother on his mother's side had 1 brother who was colorblind and 3 sisters. Two of these sisters were unaffected and one was a carrier. The boy's great grandmother on his mother's side had 4 sisters. The boy has one unaffected and one was a carrier. The boy's great grandmother on his mother's side had 4 sisters. The boy has one unaffected sister and he is colorblind. What is the probability of the boy's son being colorblind if he marries a normal vision woman? _____
48. Name a trait carried on the Y chromosome _____
49. How many genes are on the X chromosome? _____Y?_____
50. Which sex chromosome is longer? _____