

GENETICS AND EVOLUTION REVIEW name _____

1) Name at least 7 traits found in humans that can either be dominant or recessive. (14pts)

Trait?	Dominant?	Recessive?

2) What does heredity mean?

3) How is self-pollination different from cross pollination?

4) List examples of traits that might be found in a deer

5) Explain the difference between DNA, chromosomes, and genes(3pts)

6) Give 2 examples of Alleles (2pts) _____

7) How do we show a dominant trait? _____

8) What kind of trait is masked by dominant traits? _____

9) What is the difference between phenotype and genotype? _____

10) What does it mean to be heterozygous? What is another word for heterozygous? (2pts)

11) If a person is Homozygous dominant for the trait of tasting, how will all their children turn out?

12) If you cross 2 homozygous recessive people, how do all their children turn out?

13) Noses in humans use the principle of incomplete dominance. What does that mean?

14) Define probability

15) What is the difference between sexual reproduction and asexual reproduction?

16) How is mitosis different from meiosis?

17) List the 5 types of asexual reproduction and define each:

- 1 _____
- 2 _____
- 3 _____
- 4 _____
- 5 _____

18) Sex chromosomes- female= _____ male= _____

19) What can a pedigree show you? _____

20) When would a woman become a carrier for a sex linked disease? _____

21) Sometimes _____ genes code for one trait and sometimes one gene codes for _____ traits

22) Genes aren't the only influence on your traits. Your _____ (where you live and how you're raised) can also affect your traits.

Rr	Rr
Rr	Rr

23) Based on this punnett square, what are the genotypes of the parents?

24) Cross a person with unattached ears (U-unattached is dominant) with another person with unattached ears. They are both heterozygous for that trait. (1pt for cross)

GENOTYPES(1pt)

_____	_____
_____	_____

PHENOTYPES(1pt)

25) If black fur had incomplete dominance over white fur, what color would the offspring be?

26) In cats, there are two types of ears: normal and curly. A curly eared cat mated with a normal eared cat and all of the kittens had curly ears. Are curly ears a dominant or recessive trait?

27) What is an inherited trait? Give 2 examples.

28) What is an acquired trait? Give 2 examples.

EVOLUTION REVIEW (5-2 +5-3)

29) What does evolution mean? _____

30) Who first came up with the idea that species change over time? _____

31) Give an example of selective breeding _____

32) What 4 things limit a population's growth?

1 _____

2 _____

3 _____

4 _____

33) Why are the dandelions in my yard short?

34) Describe how insects become resistant to pesticides

35) Describe the 4 steps of NATURAL SELECTION:

1 _____

2 _____

3 _____

4 _____

36) What is the definition of speciation?

37) Tell the 3 steps for a new species to develop

1 _____

2 _____

3 _____

38) What is a mutation?

39) There are two traits for dog hair—long hair and short hair. Which trait has the adaptation if you live in northern Michigan? Florida?

40) There are 2 alleles for moth color—dark and white. If the trees are light colored, which has the adaptation? _____

41) There are 2 genes for beak shape in finches—long skinny beaks and short thick beaks. Which trait has the adaptation if the birds live in an area with many tough hard seeds?

42) How is natural selection different from selective breeding? How are they the same? (2pts)

