Name _____

Genetics Test Review II

Period ____ Date _____

1. Physical characteristics studied in genetics traits

2. Gregor Mendel cross-pollinated pea plants

3. Factors that control traits genes

4. Offspring ~~the~~ that always produces offspring with the same form of the trait as the parent:
pure / purebred

5. What does a punnett square show?
all the possible outcomes of a genetic cross

6. The likelihood that a particular event will occur is probability

7. Give an example of a phenotype: round eyes, square body, colorblind girl

8. What is a genotype? the genetic make up (the letters)

9. A change that reduces the organism's chances of survival and reproduction is a harmful mutation.

10. A female whiptale lizard produces eggs that develop into new individuals without fertilization from a male. The offspring will be identical to the female ~~shark~~. lizard

11. Mark the following as inherited trait (I) or acquired trait (A):

A Jo runs faster after 6 weeks of track practice.

I Addy has dimples.

A Samantha eats Skittles for dessert every night.

A Alan completes essays that win competitions.

I Jessie has ear lobes that are attached.

A Jane plays the drums well in the school theatre production.

12. A favorable mutation increases the organism's chances of survival.

13. Which of the following is favorable? Place an "F" by each that applies.

F Bears with white fur in the arctic.

F Monkeys with stronger tails.

____ A starfish with a nubbed leg.

____ Hummingbirds with short beaks.

F Light brown lizards in the desert.

F Rattlesnakes with more poisonous venom.

Use the vocabulary word to complete the definitions.

14. the passing of traits from parent to offspring: heredity

21. when both alleles are expressed; ~~neither is dominant or recessive~~: Codominance

22. the science that studies the laws of heredity: genetics

23. the physical appearance or visible traits of an organism phenotype

24. an organism that has two different alleles for a trait heterozygous "hybrid"

25. the different forms a gene may have for a trait allele

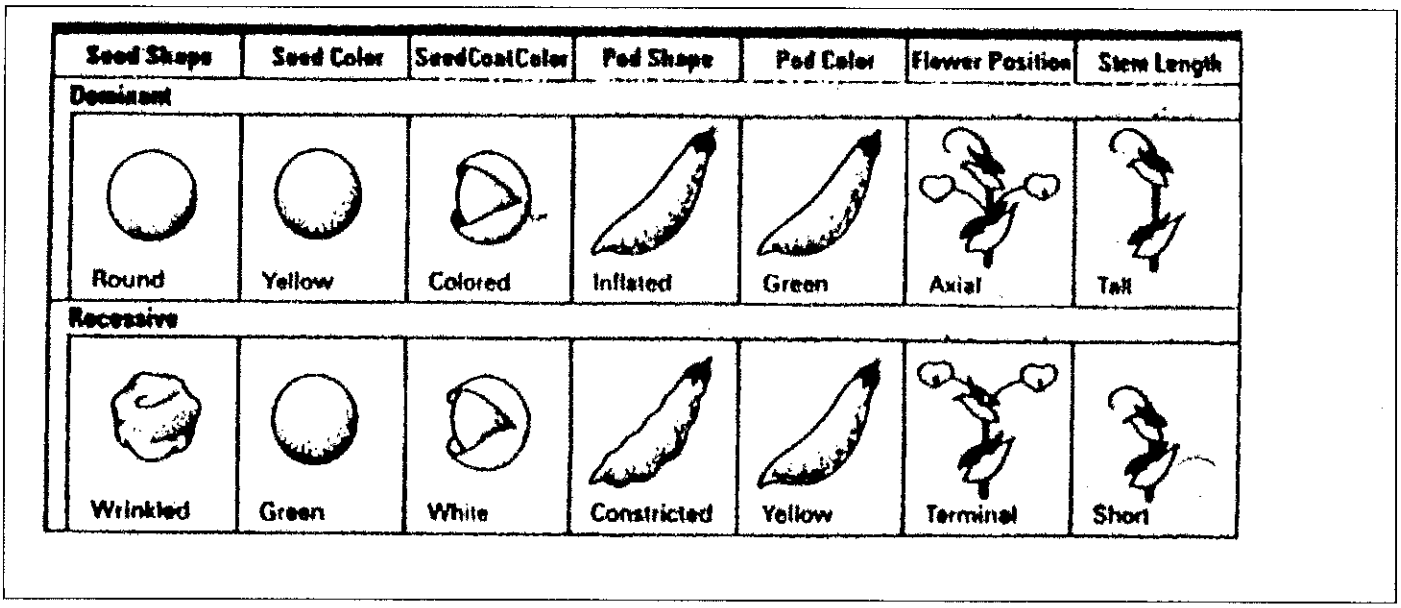
26. the allele that always "shows up" dominant

27. the allele that is masked when a dominant allele is present recessive

28. an organism that has two identical alleles for a trait homozygous "pure"

29. condensed strands of DNA Chromosome

30. instructions for the various heredity traits of an organism are found in its DNA



Write the symbols using the table above.

Pure yellow seed- YY Hybrid yellow seed- Yy Pure green seed- yy

Pure green pod - GG Hybrid green pod- Gg Pure yellow pod- gg

Homozygous axial- AA Heterozygous axial- Aa Homozygous terminal- aa

Homozygous tall- TT Heterozygous tall- Tt Homozygous short- tt

Record homozygous (ho) or heterozygous (he).

ho rr he Cc ho AA he tt he Gg

he Aa ho gg ho TT he Ii ho RR

Record the phenotypes given the genotypes. Use the table above.

rr wrinkled Cc colored

AA axial tt short

Gg green cc white

Record the possible genotypes given the phenotype.

Round RR, Rr Wrinkled rr Axial AA, Aa Green GG, Gg OR gg

Inflated II, Ii Short tt Yellow YY, Yy OR yy Colored CC, Cc

USE THE GENETICS CHART of Mendel's pea plants!!! Label genotypes & phenotypes on each problem.

14. A homozygous (II) dominant inflated pod is crossed with a heterozygous pod.

	I	I
I	II	II
i	Ii	Ii

genotype: II, Ii

phenotype: inflated 100%

15. A wrinkled (rr) seed shape is crossed with a pure (RR) round seed shape.

	R	R
r	Rr	Rr
r	Rr	Rr

genotype: Rr

phenotype: 100% round

16. A pure yellow (YY) seed color is crossed with a pure (yy) green seed color.

	Y	Y
y	Yy	Yy
y	Yy	Yy

genotype: Yy

phenotype: 100% yellow

17. Cross two heterozygous axial flowers. (Aa)

	A	a
A	AA	Aa
a	Aa	aa

genotype
25% AA
50% - Aa
25% - aa

phenotype
75% Axial
25% terminal

18. Cross a homozygous green pod with a heterozygous green pod. GG Gg

	G	G
G	GG	GG
g	Gg	Gg

genotype
50% GG
50% Gg

phenotype
100% green

19. Cross a terminal flower position with a heterozygous axial flower position. (aa) (Aa)

	a	a
A	Aa	Aa
a	aa	aa

genotype
50% Aa
50% aa

phenotype
50% axial
50% terminal

**********Know how to use a PEDIGREE!!!! Draw your own example for any trait you choose. Show 3 generations.