Study guide module 8

1.

A. True breeding- If an organism has a certain characteristic that is always passed on to its offspring we say that this organism breed true with respect to that characteristic
B. allele- one of a pair of jeans that occupies the same position in homologous chromosomes
C. genotype- two letter set that represents the alleles and organism possesses for a certain trait
D. phenotype-The observable expression of an organism's genes
E. Homozygous genotype- a genotype in which both alleles are identical
F. heterozygous genotyp- a genotype with two different alleles
G. dominant allele- and allele that will determine phenotype if just one is present in the genot
H. recessive allele- and allele that will not determine the phenotype unless the genotype is homozygous in that allele
J. Pedigree- a diagram that follows a particular phenotype through several Generations
K. monohybrid cross- a cross between two individuals concentrating on only one definable trait
L. dybrid cross- a cross between two individuals concentrating onto definable traits
M. autosomes- chromosomes that do not determine the sex of an individual
N. sex chromosomes- chromosomes that determine the sex of an individual
O. antigen- A protein that when introduced in the blood triggers the production of an antibody
P. autosomal inheritance- inheritance of a genetic trait not on a sex chromosome
Q. genetic disease carrier- a person who is heterozygous in a recessive genetic disorder
R. sex linked inheritance- inheritance of a genetic trait located on the sex chromosomes
S. mutation- a radical chemical change in one or more alleles
T. change in chromosome structure- a situation in which a chromosome loses or gains genes during meiosis
U. change in chromosome numbers- A situation in which abnormal cellular event in meiosis lead to either none of a particular chromosomes in the gamut or more than one chromosome in the gamut

3. Meiosis separates the two alleles
4. 50% of The Offspring Have the AA genotype
5. 50% of the children will be able to roll their Tongue
6. the genotype is Bb
7. no wings
8. 100% of The Offspring have the big Ss
9. 56.25
10. 50% of the females will be white-eyed and 50% of the males will be wide-eyed
11. XY
12. Change in the chromosome numbers
13. The genetic disorder must be Recessive
14. sex linked disorders affect men more than women
15. the genetics are the same
16. A 50% B 50%
17. pp
18. polygenic inheritance

On your owns

8.1

a. The plant will produce wrinkled peas.
b. The plant will produce smooth peas.

8.2 either YY or Yy

8.3 yy factors

8.4 The SS offspring's genotype is simply SS, its phenotype is for smooth peas. The Ss offspring have the Ss genotype. They are heterozygous. And since the smooth allele is dominant, they also have the phenotype for smooth peas. The ss offspring are homozygous, they have the genotype ss and they have the genotype ss and they have the phenotype for wrinkled peas.

8.5 50% will have the Pp genotype, while the other half will have the pp genotype. 50% will have the purple flower phenotype and 50% will have the white flower phenotype.

8.6 the no tail allele is dominant, the third and fourth have the Nn genotype, and the second has the nn genotype, and the first has the Nn genotype.

8.7 SY, Sy, sY, sy.

8.8 pleiotropy.

8.9 25 percent for AB, A, B, and O

8.10 fifty percent of the children will be Rh positive and 50 percent will be Rh negative

notes module 8

Allele- one of a pair of genes that occupies the same position on homologous chromosomes

	P	P
p	Pp	Pp
p	Pp	Pp

the upper cased letter is domintent

ex) Pp

is P

nent

Antigen - a protein that when introduced in the blood triggers the production of an antibody