

Bikini Bottom Genetics Review

Name _____

1. Use the word bank and your notes to complete each statement.

1. • Purebred - Also called _____ and consists of gene pairs with genes that are the _____.
2. • Hybrid - Also called _____ and consists of gene pairs with genes that are _____.
3. • Genotype is the actual _____ makeup represented by _____.
4. • Phenotype is the _____ appearance of a trait, such as a _____ body color.

Word Bank
Different
Genetic
Heterozygous
Homozygous
Letters
Physical
Yellow
Same

Classify each of the following gene pairs as heterozygous (He) or homozygous (Ho).

5. TT _____ 6. Bb _____ 7. dd _____ 8. Ff _____ 9. Rr _____

Give the possible genotypes for each trait based on the information provided in the chart.

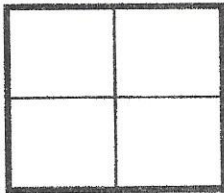
Trait	Dominant Gene	Recessive Gene
Body Shape	Squarepants (S)	Roundpants (s)
Body Color	Yellow (Y)	Blue (y)
Eye Shape	Round (R)	Oval (r)

10. Purebred squarepants - _____
 11. Hybrid round eyes - _____
 12. Heterozygous squarepants - _____
- ~~Blue body - _____~~
~~Purebred roundpants - _____~~
~~Homozygous yellow body - _____~~

Give the phenotypes for each genotype based on the information provided in the chart.

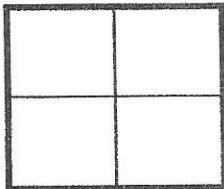
13. SS - _____ 14. Yy - _____ 15. rr - _____
- ~~_____~~ ~~_____~~ ~~_____~~

Spongebob's cousin, SpongeJimBob, is a heterozygous yellow sponge. He recently married a blue sponge gal. Create a Punnett square to help you answer the questions.



- ~~What are the possible genotypes and phenotypes for the offspring?~~
16. What percentage would be yellow? _____ %
 17. What percentage would be blue? _____ %

SpongeJimBob has oval eyes, while his bride is believed to be homozygous for her round eye shape. Create a Punnett square to help you answer the questions.



- ~~What are the possible genotypes and phenotypes for the offspring?~~
18. What percentage would have round eyes? _____ %
 19. What percentage would have oval eyes? _____ %
- T. Trimpe 2006 <http://sciencespot.net/>