

Name _____
Ms. Umali (2.03)- Sponge bob genetics homework

Class: _____
Date: _____

Use your knowledge of genetics to complete this worksheet.

Scientists at Bikini Bottoms have been investigating the genetic makeup of the organisms in this community.

1. For each genotype below, indicate whether it is a heterozygous (He) OR homozygous (Ho).

TT ____ Bb ____ DD ____ Ff ____ tt ____ dd ____

Dd ____ ff ____ Tt ____ bb ____ BB ____ FF ____

Which of the genotypes in #1 would be considered purebred? _____

Which of the genotypes in #1 would be hybrids? _____

2. Determine the phenotype for each genotype using the information provided about SpongeBob.

Yellow body color is dominant to blue.

YY _____ Yy _____ yy _____

Square shape is dominant to round.

SS _____ Ss _____ ss _____



3. For each phenotype, give the genotypes that are possible for Patrick.



A tall head (T) is dominant to short (t).

Tall = _____ Short = _____

Pink body color (P) is dominant to yellow (p).

Pink body = _____ Yellow body = _____

(→flip to back page!)

Characteristic	Dominant Gene	Recessive Gene
Body Shape	Squarepants (S)	Roundpants (s)
Body Color	Yellow (Y)	Blue (y)
Eye Shape	Round (R)	Oval (r)
Nose Style	Long (L)	Stubby (l)

1. Use the information for SpongeBob's traits to write the phenotype (physical appearance) for each item.

(a) LL- _____ (e) Rr- _____

(b) yy- _____ (f) ll- _____

(c) Ss- _____ (g) ss- _____

(d) RR - _____ (h) Yy - _____

2. Use the information in the chart in #1 to write the genotype (or genotypes) for each trait below.

(a) Yellow body - _____ (e) Stubby nose - _____

(b) Roundpants - _____ (f) Round eyes - _____

(c) Oval eyes - _____ (g) Squarepants - _____

(d) Long nose - _____ (h) Blue body - _____

3. Determine the genotypes for each using the information in the chart in #1.

(a) Heterozygous round eyes - ____ (c) Homozygous long nose - ____

(b) Purebred squarepants - ____ (d) Hybrid yellow body - ____