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!)
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 -_____