

Answer Sheet: Genetics Worksheet-- Handout 1

1. c. homozygous, recessive
d. homozygous, recessive
e. heterozygous
f. homozygous, dominant
2. a. brown eyes
b. blue eyes
c. brown eyes
3. a. (S-smooth pea pod s- wrinkled pea pod) P generation = Ss X ss
b.+ c.

	S	s
S	Ss	Ss
s	Ss	ss

- d. 1 : 1 Ss : ss
- e. 1 : 1 smooth : wrinkled
- f. prediction: 25 seeds would have a wrinkled pod
4. a. (F- freckles f- no freckles) cross= Ff X Ff

	F	f
F	FF	Ff
f	Ff	ff

- b. There is a 25% chance that their first child will have no freckles.
- c. 1 : 2 : 1 FF:Ff:ff
5. (F-free ear lobe f-attached ear lobe) cross= FF X ff

	F	F
f	Ff	Ff
f	Ff	Ff

No, based on the Punnett square, they can only produce children heterozygous for free ear lobes. Therefore, all their children will have free ear lobes, but be a carrier for the attached ear lobe gene.