

NAME _____

KEY

*CLASSWORK: MORE GENETICS

PRACTICE!

1. Fill in the table below.

Pea plant seeds are dominant for yellow seeds.

	Homozygous or Heterozygous ?	Dominant or Recessive ?
YY	Homozygous	Dominant
Yy	Heterozygous	_____
yy	Homozygous	recessive

2) Fill the Punnet Squares below and answer the questions. These are based upon brown eyes being dominant.

BB x Bb

	B	b
B	BB	Bb
b	Bb	bb

Bb x bb

	B	b
b	Bb	bb
b	Bb	bb

What is the % of brown eyes? 100%

What is the % of blue eyes? 0%

c) What is the % of brown eyes? 50%

d) What is the % of blue eyes? 50%

OOMPA LOOMPA GENETICS

Monohybrid Crosses

Show your work!

3. Oompas generally have gray faces, which is caused by a dominant gene. The recessive condition results in an orange face. Develop a key to show the possible genotypes and phenotypes for the Oompah's face colors.

Key:
 GG = Gray face
 Gg = Gray face
 gg = Orange face



4. Two heterozygous Oompahs are crossed. What proportion of the offspring will have orange faces? 25%

	G	g
G	GG	Gg
g	Gg	gg

5. A gray faced Oompah (homozygous) is married to an orange faced Oompah. They have 8 Oompah children. How many of those children will have gray faces? 8

	G	G
g	Gg	Gg
g	Gg	Gg

6. Otis Oompah has an orange face is married to Ona Oompah who has a gray face. They have 60 Oompah children, 30 of those children have orange faces. What is Ona and Otis Oompah's genotype? Gg Show the cross.

	G	g
G	Gg	Gg
g	Gg	gg

→ Is it is GG or Gg? Try both!

→ Ona Oompah

7. Odie Oompah has a gray face, in fact everyone in Odie's family has a gray face, and the family likes to brag that they are a "pure" line. Much to his family's horror, he married Ondi Oompah, who *gasp* has an orange face. What will be the phenotypes of their children? _____ What are the genotypes of the children? _____

8. Ona Oompah (from #4) divorces Otis and marries Otto. Otto has a gray face, but is heterozygous. What is the probability that Ona and Otto's children will have an orange face? 25% or 1/4

	G	g
G	GG	Gg
g	Gg	gg