

Name: _____

Date: _____

Warm-Up: Genotype-Phenotype Practice Worksheet

Directions: Use the information given to you below for each trait to answer the problems that follow.

<u>Trait</u>	<u>Dominant Allele</u>	<u>Recessive Allele</u>	<u>Letter to Use</u>
Hair Color	Black	Blond	B or b
Eye Color	Brown	Blue	E or e
Dimples	Dimples	No Dimples	D or d
Hairline	Widow's Peak	Straight Hairline	W or w
Freckles	Freckles	No Freckles	F or f
Handedness	Right Handed	Left Handed	H or h

1. What is the genotype of a female who is heterozygous for eye color? _____
2. What is the genotype of a female who is homozygous dominant for dimples? _____
3. What is the genotype of a male who is homozygous recessive for hair color? _____
4. What is the genotype of a male who is heterozygous for the widow's peak? _____
5. What is the genotype of a female who is homozygous recessive for eye color? _____
6. What is the genotype of a male who is heterozygous for dimples? _____
7. What is the genotype of a female who is homozygous dominant for handedness? _____
8. What is the genotype of a male who is homozygous recessive for handedness? _____
9. What is the genotype of a male who is heterozygous for freckles? _____
10. What is the genotype of a female who is homozygous dominant for hair color? _____
11. If a person has the genotype **DD**, they are considered to be? (circle one)
homozygous dominant **heterozygous** **homozygous recessive**
12. If a person has the genotype **hh**, they are considered to be? (circle one)
homozygous dominant **heterozygous** **homozygous recessive**
13. If a person has the genotype **Ww**, they are considered to be? (circle one)
homozygous dominant **heterozygous** **homozygous recessive**
14. If a person has the genotype Bb, what trait are they heterozygous for? _____
15. If a person has the genotype FF, what trait are they homozygous for? _____

Table 1: Mendel's Traits and Symbols for Pea Plants

Traits	Dominant Allele	Symbol	Recessive Allele	Symbol
Seed Shape	Round	R	Wrinkled	r
Seed Color	Yellow	Y	Green	y
Seed Coat Color	Colored	C	White	c
Pod Shape	Smooth	S	Constricted	s
Pod Color	Green	G	Yellow	g
Stem Height	Tall	T	Short	t
Flower Position	Axial	A	Terminal	a

Phenotype

Genotype

- | | | | |
|---------------------------------------|-------|--|-------|
| 1. Heterozygous for height | _____ | 9. Heterozygous flower position | _____ |
| 2. Homozygous dominant for seed shape | _____ | 10. Heterozygous seed color | _____ |
| 3. Heterozygous colored seed coat | _____ | 11. Homozygous smooth pod | _____ |
| 4. Homozygous green pod | _____ | 12. Homozygous constricted pod | _____ |
| 5. Homozygous short | _____ | 13. Homozygous recessive for seed coat color | _____ |
| 6. Homozygous tall | _____ | 14. Heterozygous for pod color | _____ |
| 7. Homozygous axial | _____ | 15. Homozygous round seed | _____ |
| 8. Homozygous terminal | _____ | | |