

MONOHYBRID CROSS WORKSHEET 1

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Name

Date

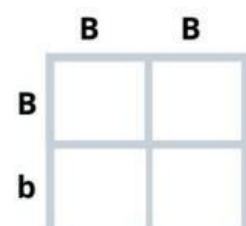
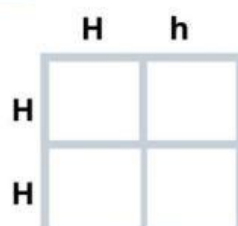
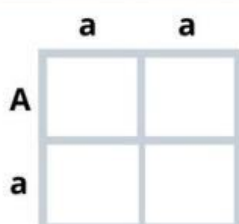
Vocabulary: fill in the Blanks

- | | |
|--|--------------------------|
| ___1. Different variations of a gene. | A. Complete dominance |
| ___2. An individual's collection of genes and alleles. | B. Monohybrid cross |
| ___3. An allele that is only expressed in a homozygous state. | C. Punnett square |
| ___4. An allele that is expressed in a heterozygous state. | D. Genotype |
| ___5. A unit of heredity that usually encodes a protein. | E. Gene |
| ___6. A diagram used to predict genotypes. | F. Allele |
| ___7. When dominant alleles mask recessive allele effect. | G. Recessive trait |
| ___8. When recessive alleles have a partial phenotypic effect. | H. Dominant trait |
| ___9. A specific characteristic or attribute of an organism. | I. Trait |
| ___10. The offspring generation. | J. Filial generation |
| ___11. The generation preceding the offspring generation. | K. Parental generation |
| ___12. Also known as allele frequency. | L. Genotypic frequencies |
| ___13. Set of all genes found within a given population. | M. Homozygous |
| | N. Heterozygous |
| | O. Incomplete dominance |
| | P. Gene pool |

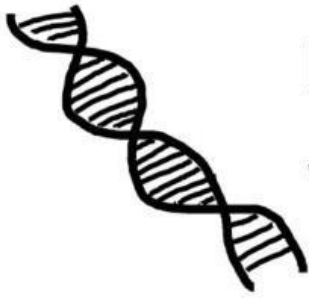
Circle choices that match each word:

- | | |
|--------------------------|----------------------------------|
| 14. Heterozygous | Hn Nn aa Bb hh Yy YY Aa Gg oo EE |
| 15. Homozygous dominant | Bb AA Ee NN Hh hh Aa Kk LL MM Gg |
| 17. Homozygous recessive | Yy GG aa Bb Nn nn Kk LL oo ee Aa |
| 18. Recessive allele | a N K m h H U k O p P o F A R r |
| 19. Dominant allele | H j K k U y Y T M L F f d D P A |

Complete the Punnett squares:



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MONOHYBRID CROSS WORKSHEET 2

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Name _____

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Complete the Punnett squares & fill in the blanks

①

	h	h
H		
h		

Frequencies:

HH: _____

Hh: _____

hh: _____

Genotypes:

P1: _____

F1: _____

②

	a	a
A		
A		

Frequencies:

AA: _____

Aa: _____

aa: _____

Genotypes:

P1: _____

F1: _____

③

	B	b
B		
b		

Frequencies:

BB: _____

Bb: _____

bb: _____

Genotypes:

P1: _____

F1: _____

Monohybrid cross problems

4. In pea plants, the tall (T) trait is dominant over the dwarf (t) trait. A homozygous tall plant is crossed with a homozygous dwarf plant. What are the genotypes and phenotypes of the first generation? Assume complete dominance.

Cross: _____ x _____

P1 genotypes: _____

F1 genotype(s): _____

F1 phenotype(s): _____

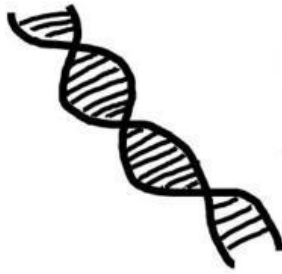
5. If two of the F1 generations from Question 4 are crossed with one another, what would be the genotypes and phenotypes of the F2 offspring?

Cross: _____ x _____

F1 genotypes: _____

F2 genotype(s): _____

F2 phenotype(s): _____



MONOHYBRID CROSS WORKSHEET 3

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Name

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Monohybrid cross problems

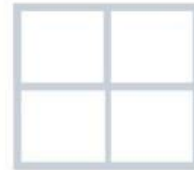
1. A gene encoding mouse coat color has two different alleles that either encode gray (G) or white (g) fur, or dominant and recessive traits, respectively.

a. What would the genotypes and phenotypes of the F1 generation be if a heterozygous gray mouse is mated with a white mouse?

P1 cross: _____

F1 genotype(s): _____

F1 phenotypes: _____



b. What would the F1 genotypes and phenotypes be if a homozygous gray mouse mates with a white mouse?

P1 cross: _____

F1 genotype(s): _____

F1 phenotypes: _____



2a. Two mice with unknown coat colors mated and produced the following offspring: 8 gray coated- and 4 white-coated mice. What were the genotypes and phenotypes of the parents?

2b. If the parents produced all gray offspring, what were the genotypes and phenotypes of the parents?

2c. If 50% of the offspring were gray, what were the phenotypes and genotypes of the parents?

3. A species of orchids have a gene encoding either a dominant pink (P) or recessive white (p) flower color trait. If a heterozygous pink and white flower were crossed, what is the probability that the offspring have white flowers?

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LIVEWORKSHEETS