

Mendelian Punnett Squares Practice

Define the following terms:

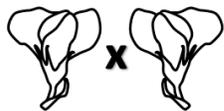
Allele – _____

Genotype – _____

Phenotype – _____

For each of the following Punnett Squares, IDENTIFY the alleles of the parents and the genotypes of the offspring; COLOR the phenotypes of the parents and offspring; AND ANSWER the questions that follow.

Flower Color



Purple (Pp) by White (pp)



| | |
|---|---|
|  |  |
|  |  |

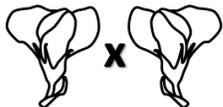
Which trait is the dominant trait?

Which trait is the recessive trait?

What is the genotype ratio of the offspring?

What is the phenotype ratio of the offspring?

Flower Color



Purple (Pp) by Purple (Pp)



| | |
|---|---|
|  |  |
|  |  |

Which trait is the dominant trait?

Which trait is the recessive trait?

What is the genotype ratio of the offspring?

What is the phenotype ratio of the offspring?



Mendelian Punnett Squares Practice

- Teacher Key -

Allele – **one of two forms of a gene that are found at the same place on a chromosome.**

Genotype – **the set of alleles an individual has for a gene.**

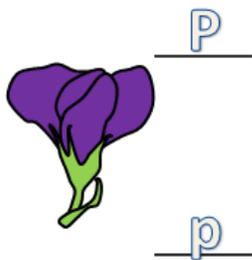
Phenotype – **the physical trait an individual has for a gene.**

For each of the following Punnett Squares, IDENTIFY the alleles of the parents and the genotypes of the offspring; COLOR the phenotypes of the parents and offspring; AND ANSWER the questions that follow.

Flower Color



Purple (Pp) by White (pp)



| | | |
|----------|---|---|
| | <u>p</u> | <u>p</u> |
| <u>P</u> |  Pp |  Pp |
| <u>p</u> |  pp |  pp |

Which trait is the dominant trait?

Purple Flowers

Which trait is the recessive trait?

White Flowers

What is the genotype ratio of the offspring?

0% PP, 50% Pp, 50% pp (1:1 Pp:pp)

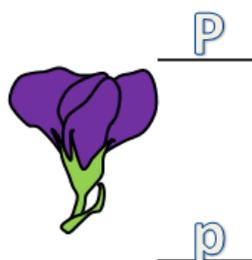
What is the phenotype ratio of the offspring?

50% Purple, 50% White

Flower Color



Purple (Pp) by White (pp)



| | | |
|----------|---|---|
| | <u>P</u> | <u>p</u> |
| <u>P</u> |  PP |  Pp |
| <u>p</u> |  Pp |  pp |

Which trait is the dominant trait?

Purple Flowers

Which trait is the recessive trait?

White Flowers

What is the genotype ratio of the offspring?

**25% PP, 50% Pp, 25% pp
(1:2:1, PP:Pp:pp)**

What is the phenotype ratio of the offspring?

**75% Purple, 25% White
(3:1, Purple:White)**

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- Mr. Sidol

