

Name\_

## **Corn Genetics Worksheet**

## I. Predictions

Cross A: RrSs × RrSs			
Genotypes/Probabilities	Phenotypes	Phenotypic Ratio	
	Purple/Smooth		
	Purple/Wrinkled		
	Non-purple/Smooth		
	Non-purple/Wrinkled		

Cross B: RrSs × rrss			
Genotypes/Probabilities	Phenotypes	Phenotypic Ratio	
	Purple/Smooth		
	Purple/Wrinkled		
	Non-purple/Smooth		
	Non-purple/Wrinkled		

## **II.** Actual Count

Phenotypes	Number	Phenotypic Ratio
Purple/Smooth		
Purple/Wrinkled		
Non-purple/Smooth		
Non-purple/Wrinkled		

## **III.** Post-Lab Questions

1. Which genetic cross most likely produced your ear of corn? Include evidence to support your answer.

2. How do you explain any differences between your actual results and the predicted results? Is the difference significant?

3. Examine the genotypes in cross A above. What is the ratio of purple to non-purple? \_\_\_\_\_ What is the ratio of smooth to wrinkled? \_\_\_\_\_ Explain what the term *independent segregation* might mean.

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