

# Punnett square

## Monohybrid Cross =

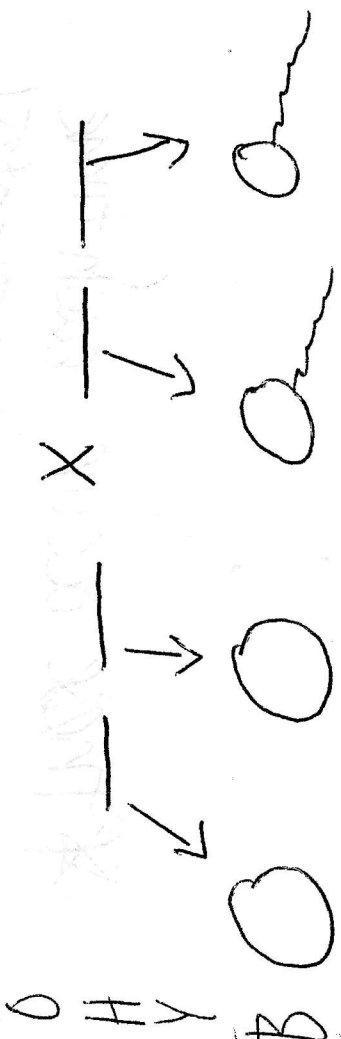
In Mendel's pea plants, tall is dominant to short. In his 1st cross, Mendel crossed a true-breeding tall and a true-breeding short plant. Predict the genotypes & phenotypes of the offspring from this cross.

1. Determine alleles  
 Tall =       
 Short =     

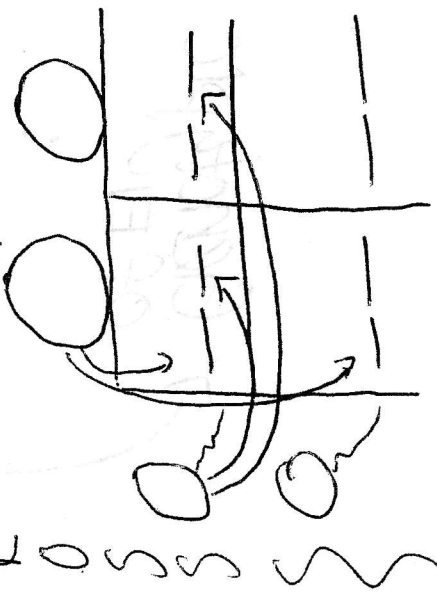
2. Determine Parent Genotypes

Tall x Short  
     x     

MOM: Determine each parent's gametes.



4. Build and fill-in the square  
 a. Put Mom's gametes on top and Dad's on the side.  
 b. Fill in the square by putting each parent's letter in the box.



c. Analyze the info and answer the?

- Genotype(s) of offspring:

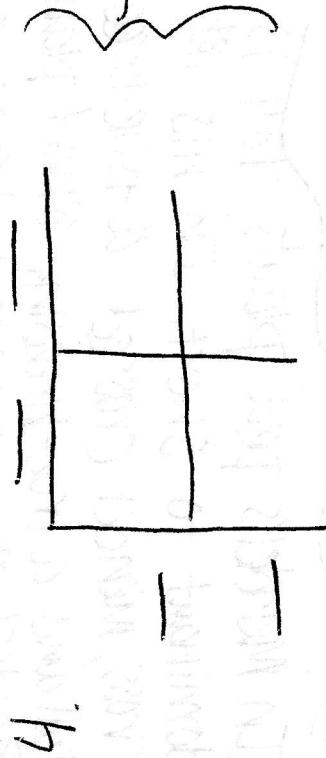
- Phenotype(s) of offspring:

Now, cross two heterozygous tall plants

1. Tall = T  
Short = t

2.  $\frac{T}{\downarrow} \times \frac{T}{\downarrow}$

3.



Genotypic Ratio \*

of F<sub>1</sub> : :

Phenotypic Ratio \*

: :

\* THESE OCCUR EACH TIME  
you cross 2 heterozygotes!