

## Chromosome Mapping

Name \_\_\_\_\_ # \_\_\_\_\_

Introduction- Mag Bio

### Chromosome Map Practice Problem

In pea plants, flower color and pollen shape are located on the same chromosome. A plant with purple flowers and long pollen (AaBb) is crossed with one that is recessive for both traits (aabb).

The F1 results are as follows:

	Results
Purple, long	47
Red, round	47
Purple, round	3
Red, Long	3

Purple flowers,  
long pollen



Red flowers,  
round pollen



- Does this follow Mendel's 1:1:1:1 phenotypic ratio results obtained with crossing pea plants?
- What does this imply? (Explain your answer)
- Are the majority of the offspring like the parents, or are they recombinant?
- What % of the time did they cross over?
- How far apart are the genes?
- Draw a chromosome and map the genes (scale the distance appropriately)