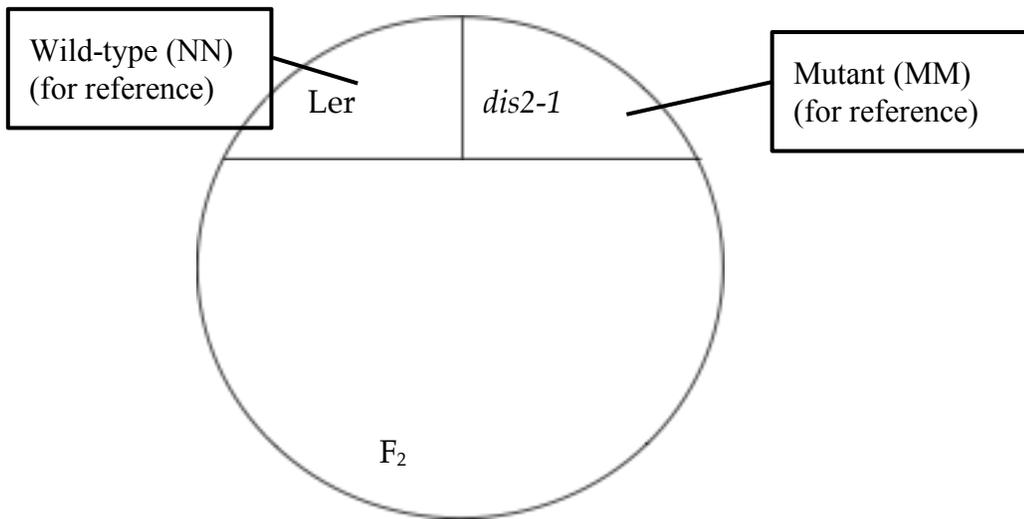


Procedure

1) Your TA will give each group a pair of plates for your mutant. Write down the name of the mutant in your lab notebook. Your plate will look something like this:



2) Compare the phenotypes of MM (mutant) and NN (wild type – Col or Ler). Describe what the mutant phenotype looks like in your lab notebook.

3) Count all of the F₂ plants shown on your plate. Determine the number of those with wild type, mutant, or intermediate phenotypes (if present). Record your data in a table.

4) Use the data recorded in Step 3 to determine if the mutant is dominant, recessive, or incompletely dominant.

Lab Report (20 points)

1. Name the mutation and describe the mutant phenotype compared to the wild type phenotype.
2. Data table of counts of wild type, mutant, and intermediate (if present) phenotypes.
3. Conclusion
 - a. Give a genetic argument for what you would expect to see if mutant was dominant, recessive, or incompletely dominant. *Example: "There are F₂ offspring from crossing a mutant with a wild type plant. Therefore, we would expect to see X if the mutant is dominant, Y if the mutant is recessive, and Z if the mutant is incompletely dominant."*
 - b. Explain your argument based on your data seen in lab. *Example: "Since we saw 27 mutants out of 90 total F₂ plants, which is close to 25%, we can conclude that the mutant phenotype is recessive."*

