

Name:
Date:

Plasmid Mapping Worksheet 3: Introduction to Mapping

Comprehension Problems

Answer the following comprehension questions

1. Below is a diagram of pMSP2N2 (5300bp), a popular plasmid used in experiments to produce synthetic lipid membranes. Using the diagram below, mark each of the following restriction sites:

- Psil at 3175bp
- BglI at 2,329bp and 1,789bp
- Accl at 5,175bp
- NcoI at 1,450bp
- SphI at 1,156bp



2. Calculate and notate the distance between each restriction site.

- How many fragments would be produced if you cut pMSP2N2 at all of the above restriction sites? ____
- How many fragments would be produced if you cut pMSP2N2 at NcoI, Accl, and Psil only? ____
- How many times does BglI cut pMSP2N2? ____
- How many times does NcoI cut pMSP2N2? ____
- What does the 'p' in pMSP2N2 denote? ____
- If you cut the plasmid using Accl, how many fragments would be produced? Would the plasmid be linear or circular? _____