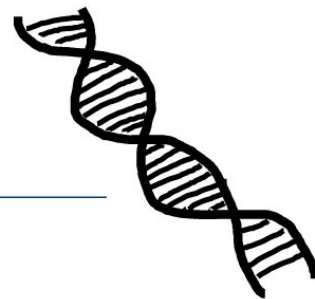


Name:
Date:

Plasmid Mapping Worksheet 5: Fragments to Mapping



Comprehension Problems

Plasmid Mapping

1. As part of their molecular biology class, a group of students digested an unknown plasmid (pFUN101, total length = 12kb) using combinations of various restriction enzymes listed below. They ran the digested product on an agarose gel, counted the number of fragments produced, along with the size of each fragment. Their results are summarized in the table below.

a. Using the information provided in the table below, construct a restriction map of the unknown plasmid.

Enzyme(s)	No. Fragments	Fragment sizes
HindIII	2	5.2kb, 6.8kb
EcoRI	2	5kb, 7kb
PstI	2	2.5kb, 9.5kb
HindIII + EcoRI	4	1.8kb, 2kb, 3.2kb, 5kb
HindIII + PstI	4	1.2kb, 1.3kb, 4kb, 5.5kb
EcoRI + PstI	4	0.5kb, 2kb, 2.5kb, 7kb

