# Name(Print): <br> $\qquad$ <br> Circle Section Number, 21, 22, 23, 24, 25 

 ID(Number): $\qquad$Signature:

Math 1151, Lecture $20 \quad \begin{gathered}\text { Diagnostic Test } \\ \text { Professor Peter A. Rejto. }\end{gathered} \quad \begin{gathered}\text { September 7, Friday, } 2007 .\end{gathered}$

1. (40 pts.) If Mary ate $\frac{3}{8}$ - th of a pizza and Mathew ate $\frac{2}{5}$ - th of a pizza, then how much of the pizza is left? Please give the exact answer as a fraction and note that most calculators give a decimal number which is only close to the exact fraction.
2. (40 pts.) Factor,

$$
x^{2}-9 .
$$

3. (40 pts), Multiply.

$$
\left(x^{5} y^{-3}\right)\left(x^{-2} y^{2}\right)
$$

4. ( 40 pts ), Simplify.

$$
\frac{1}{\frac{1}{a}+\frac{1}{b}} \text {. }
$$

In other words, write this composite fraction as a simple fraction.

