Math 199 Quiz # 1 Review Sheet **Fall 2005**

The quiz on Wednesday will consist of definitions, and will be brief. Your wording on a definition *must be precise*, and you will be required to give a symbolic form and a verbal interpretation of the symbols. (Recall that an interpretation is a *conceptual* translation, not a symbol-by-symbol transliteration.) You may be asked to produce examples or verify that something satisfies the requirements of a definition. The ideas you should know include:

$A \subseteq B$, $A = B$

$A \cup B$, $A \cap B$, $A - B$

$\mathcal{P}(A)$

$A \times B$

$P \iff Q$

Contrapositive, Converse, Inverse

Negations of $\vee$, $\wedge$, $\forall$, $\exists$, $\Rightarrow$

x is rational

$n \mid m$

The sets $\mathbf{N}$, $\mathbf{Z}$, $\mathbf{Q}$, $\mathbf{R}$, $\emptyset$