

MAT 141
ASSIGNMENT 5

DUE OCTOBER 3, 2005

Please write proofs (or at least some reasoning if you can't give a full proof), not just answers! So if a problem asks whether some set has a maximum, do not just write "No", write "No, it doesn't because..."

As usual, you are allowed to use all the theorems stated in the appropriate chapters of the book (whether or not we have discussed them in class).

Notation:

\mathbb{Z} – set of integer numbers

\mathbb{P} – set of positive integer numbers

\mathbb{Q} – set of rational numbers

(1) Section 1.15, problems 4, 13, 16

(2) Section 1.26, problems 1, 3, 8, 14, 20, 22