## January 23, 2008

## Problems :

- 1. Show that  $\sqrt{3}$  is irrational.
- 2. Prove that a number is divisible by 4 if and only if its last 2 digits are divisible by 4.

## Consider the following statements. Write down the contrapositive and the converse of each one of them.

- All humans are mortal.
- Every continuous functions on the interval [0,1] attains its maximum.