Bilkent University
Department of Mathematics

PROBLEM OF THE MONTH

Term: December 2010

Find the maximal possible real number A such that

$$\frac{x^3}{x^2+1} + \frac{y^3}{y^2+1} + \frac{z^3}{z^2+1} \geq A$$

for all real numbers x, y and z satisfying $x + y + z = 1$.