



Bilkent University  
Department of Mathematics

## PROBLEM OF THE MONTH

**Term:** May 2008

Find the minimum of

$$\frac{1 + a + b + c}{3 + 2a + b} - \frac{c}{b}$$

where  $a$ ,  $b$  and  $c$  are real numbers such that all roots of the equation  $x^3 - ax^2 + bx - c = 0$  are real positive numbers.