

## MATH 170 – Section 010 – Quiz 1

You may work with other class members on this quiz, but you may *not* receive assistance from people not in MATH 170 (Section 010). You must show all of your work to receive full credit. Do all your work on other sheets of paper and be sure to staple all the pieces of paper together or YOU WILL GET A ‘ZERO’ ON THE QUIZ. Do not use decimal approximations unless asked to do so. Your work on this quiz must be handed in by Monday, 30 August 2004 at 1640. GOOD LUCK!

1) Find the domain of each of the following functions and completely explain your reasoning:

a)  $f(x) = (x^3 - x)^{-1/2}$

b)  $g(x) = \tan\left(3x - \frac{\pi}{6}\right)$

2) Graph the function

$$y = 6x - 11 - x^2$$

by starting with the graph of  $y = x^2$  and then using appropriate transformations.

3) Let

$$F(x) = \sin^2(3x - 4).$$

Write  $F(x)$  as the composition of three simpler functions.