

MONTGOMERY COLLEGE
Department of Mathematics
Rockville Campus

MA 103 KATIRAIE QUIZ #6A Part II SECTIONS (6.1 – 6.4) FALL 2006

NAME _____ SCORE: ____/ 10
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- 1) State the domain of the following functions.
Write your answer in set-builder notation:

a) $f(x) = \frac{1}{x+3}$

b) $g(x) = \frac{1}{x^2+4}$

c) $h(x) = \frac{1}{3x+4}$

d) $f(t) = 15t^2 - 11t + 2$

- 2) Solve the following rational equations

a) $\frac{6}{2x+1} = x$

b) $\frac{x}{x+1} = \frac{2x+1}{x+1}$

3) Simplify the expression:

a) $\frac{b^2+1}{b^2-1} \cdot \frac{b-1}{b+1}$

b) $\frac{2x+4}{x+1} \div \frac{x^2+3x+2}{4x+2}$

4) Simplify

a) $\frac{2x}{x-5} - \frac{x}{x+5}$

b) $\frac{x}{2x-1} + \frac{1-x}{3x}$

5) Solve

a) $\frac{1}{x+5} = \frac{2}{2x+1}$

b) $\frac{2x}{x+1} = 3$