MA123 Exam 2

March 5 2008

NAME _____ Section _____

Problem	Answer				
1	*a*	*b*	*c*	*d*	*e*
2	*a*	*b*	*c*	*d*	*e*
3	*a*	*b*	*c*	*d*	*e*
4	*a*	*b*	*c*	*d*	*e*
5	*a*	*b*	*c*	*d*	*e*
6	*a*	*b*	*c*	*d*	*e*
7	*a*	*b*	*c*	*d*	*e*
8	*a*	*b*	*c*	*d*	*e*
9	*a*	*b*	*c*	*d*	*e*
10	*a*	*b*	*c*	*d*	*e*
11	*a*	*b*	*c*	*d*	*e*
12	*a*	*b*	*c*	*d*	*e*
13	*a*	*b*	*c*	*d*	*e*
14	*a*	*b*	*c*	*d*	*e*
15	*a*	*b*	*c*	*d*	*e*

Instructions. Circle your answer in ink on the page containing the problem and on the cover sheet. After the exam begins, you may not ask a question about the exam. Be sure you have all pages (containing 15 problems) before you begin. For grading use:

Number of problems correct: _____/15

SCORE: _____/100

NAME_____

1. If $f(x) = \frac{-x}{x^2-1}$ then $f'(x) =$

   (a) $\frac{-x^2-1}{(x^2-1)^2}$

   (b) $\frac{1}{2x}$

   (c) $\frac{-x^2-1}{x^2-1}$

   (d) $\frac{x^2+1}{x^2-1}$

   (e) $\frac{x^2+1}{(x^2-1)^2}$

2. If $F(s) = \sqrt{2s+2}$, find $F'(1)$.

   (a) $\frac{1}{2}$

   (b) $\frac{1}{2\sqrt{2}}$

   (c) $\frac{1}{\sqrt{2}}$

   (d) $\frac{3}{2\sqrt{2}}$

   (e) $\frac{3}{2}$

3. If $g(t) = \frac{1}{t^2+1}$, then the slope of the tangent line to the graph of $g(t)$ at $t = 3$ is

   (a) $-\frac{1}{25}$

   (b) $-\frac{2}{25}$

   (c) $-\frac{1}{50}$

   (d) $-\frac{3}{50}$

   (e) $-\frac{4}{25}$

4. If $R(x) = (x-2)(x^2-2)(x^3-2)$, find $R'(2)$.

   (a) 0

   (b) 12

   (c) 48

   (d) -8

   (e) -6

5. Suppose $f(t) = H(G(t))$ and $H(3) = 5$, $H'(3) = 4$, $G(2) = 3$, and $G'(2) = 7$. Find $f'(2)$.

   (a) 12

   (b) 35

   (c) 28

   (d) 15

   (e) 43

6. If $G(s) = u(s^2)$ and $u(1) = 10$, $u'(1) = 4$, $u(-1) = 7$, and $u'(-1) = 2$, then $G'(-1) =$

   (a) -20

   (b) 4

   (c) 10

   (d) 2

   (e) -8