EXAM 2 ANSWERS, FALL 2010

PART I

VERSION A	VERSION B
1. a	1. b
2. c	2. d
3. d	3. c
4. d	4. a
5. b	5. c
6. c	6. a
7. e	7. d
8. b	8. e
9. e	9. b
10. a	10. c
11. c	11. a
12. e	12. b
13. b	13. e
14. b	14. d

PART II

1. (a) $g^{-1}(x) = \dfrac{-x}{4x-1}$
   (b) $f^{-1}(-2) = 1$
   (c) $-\dfrac{1}{3}$

2. $-\dfrac{1}{13} + \dfrac{8}{13}i$

3. (a) Proof
   (b) $\pm i, 1, -3$

4. (a) 1)$x \neq -1$
   2) $x = -1$
   3) $y = 1$
   4) $x = \dfrac{1}{3}$
   5) $x = 1, 3;\ y = 3$
   (b) Graph

4. (a) $p = -\dfrac{2}{5}x + 80$
   (b) $R = -\dfrac{2}{5}x^2 + 80x$
   (c) \$4000

1. (a) $g^{-1}(x) = \dfrac{-x}{3x-1}$
   (b) $f^{-1}(-1) = 2$
   (c) $-\dfrac{2}{5}$

2. $-\dfrac{4}{13} - \dfrac{7}{13}i$

3. (a) Proof
   (b) $\pm i, -1, 4$

4. (a) 1)$x \neq 2$
   2) $x = 2$
   3) $y = 1$
   4) $x = \dfrac{6}{5}$
   5) $x = -2, 1;\ y = -\dfrac{1}{2}$
   (b) Graph

4. (a) $p = -\dfrac{3}{5}x + 120$
   (b) $R = -\dfrac{3}{5}x^2 + 120x$
   (c) \$6000