HW #67 ANSWERS.

More practice Ch. 8.1 – 8.2

- 8.1 p. 347 : 2, 6, 12, 22*, (42), 46

2.	x	0	1	2	3	4	5
s(x)	2	5	8	3	1	4	

6. $\frac{1}{(x^2+1)-3} = \frac{1}{x^2-2}$

12. $\frac{1}{x^2-1}$

22.* | x | f(x) | g(x) | f(g(x)) |
|---|---|---|---|
| 0 | 1 | 2 | 5 |
| 1 | 9 | 0 | (1) |
| 2 | (5) | 1 | (9) |

(42). Possibility: $u = x^3$, $V = 2x+5$.

46. Possibility: $u = \frac{2}{x}$, $V = 1+\sqrt{x}$.

- 8.2 p. 359: 2, 4, 6, 11, (17), 19, 38, 40*

2. Not invertible. 4. Not invertible

6. Check that $f^{-1}(f(x)) = x$ and $f(f^{-1}(x)) = x$. (They are.) Or find inverse of f(x).

11. $K^{-1}(x) = \frac{1}{2}(\ln(x/3))$

(17.) $f^{-1}(x) = (4x^2-4)/(x^2-7)$

19. $p^{-1}(x) = 1/e^{(x/2)}$

38. a) $x = -\ln(2)$
b) $x = e^2$
c) $x = 1/\ln(2)$

40.* a) $f^{-1}(x) = \frac{2\sin x}{\sin x + 3}$

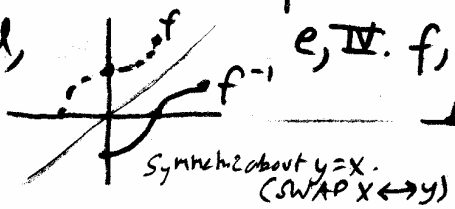
b) $g^{-1}(x) = \tan^{-1}(e^x)$

c) $h^{-1}(x) = \cos^{-1}(\sqrt{x}-1)$

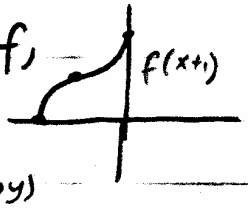
b and c have restricted domains.

Extra graphs for 8. Review p. 372 : 35*.

a) II. b) I. c) II. d)



e) IV. f)



g) I.