

TUES. 9-13-05

P.25 (36) a) 100

b) = 6394

c) = 1 HOUR

P.25
33

# of 1/2 hrs	t (in hrs)	#
0	0	1
1	1/2	2
2	1	4
3	3/2	8
4	2	16

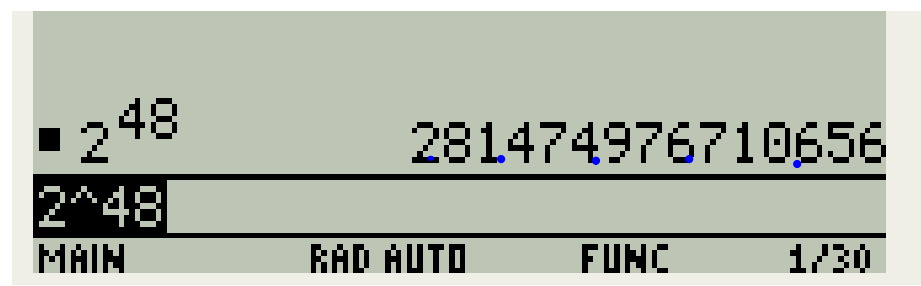
$$A = A_0 (2)^t$$

$$A = (2)^t$$

t = # of 1/2 hrs.

24 HRS t = 48

$$A = 2^{48}$$



$$\underline{\underline{2.815_{14} \times 10^{14}}}$$

INVERSES "JUST" SWITCH THE
X- AND y- COORDINATES.

Ex) $y = 2x - 6$ ↗
FIND THE INVERSE ↘

Solve: $x = 2y - 6$ (SWITCH)

SOLVE FOR y: $x + 6 = 2y$

$$\frac{x+6}{2} = y$$

$$y = \frac{x+6}{2} = \frac{1}{2}x + 3$$

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

$$f(x) = 2x - 6; \quad f^{-1}(x) = \frac{x+6}{2}$$

$$a) f(f^{-1}(x)) = f\left(\frac{x+6}{2}\right)$$

$$= 2\left(\frac{x+6}{2}\right) - 6$$

$$= x + 6 - 6$$

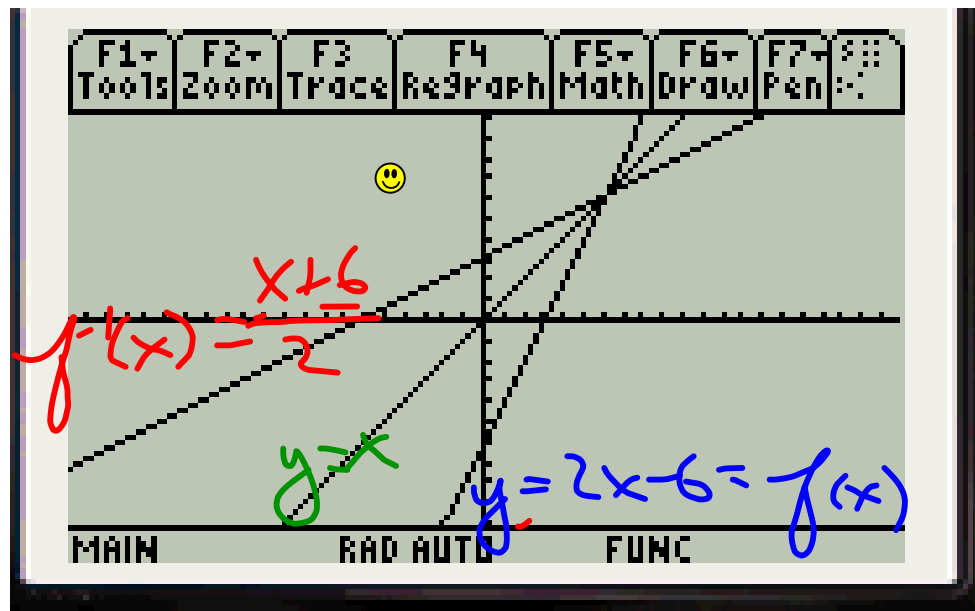
$$b) f^{-1}(f(x)) = \underline{\underline{x}}$$

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

$$= \frac{2x}{2}$$

$$= \underline{\underline{x}}$$

$$f(f^{-1}(x)) = f^{-1}(f(x)) = \underline{\underline{x}}$$



THE GRAPHS OF f & f^{-1} ARE
 SYMMETRICAL ABOUT $y = x$.

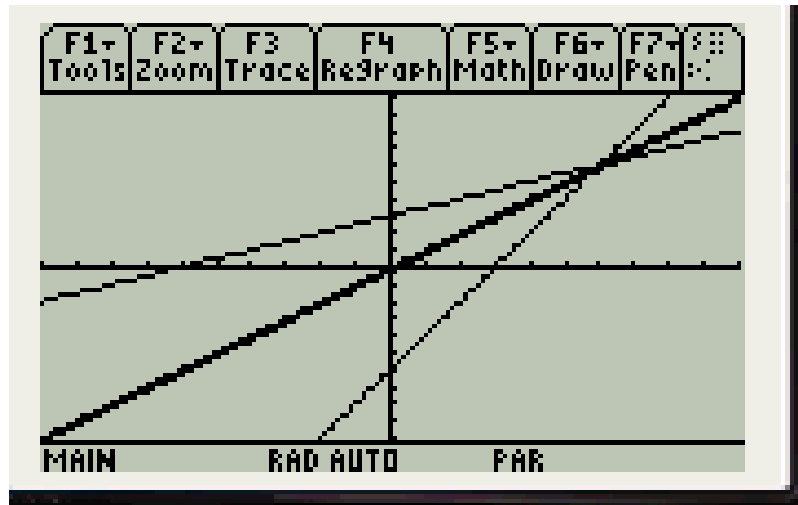
$$y = 2x - 6$$

$$x_{t_1} = T$$

$$y_{t_1} = 2T - 6$$

F1+ Tools	F2+ Zoom	F3 Edit	F4 ✓	F5+ All	F6+ Style	F7 :/:	
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*PLOTS
✓xt1=t
✓yt1=2·t - 6
✓xt2=2·t - 6
✓yt2=t
✓xt3=t
✓yt3=t
xt4=
-----
xt3(t)=t
MAIN          RAD AUTO          PAR
```



$$y = \text{Arccos } x$$

$$\Downarrow$$

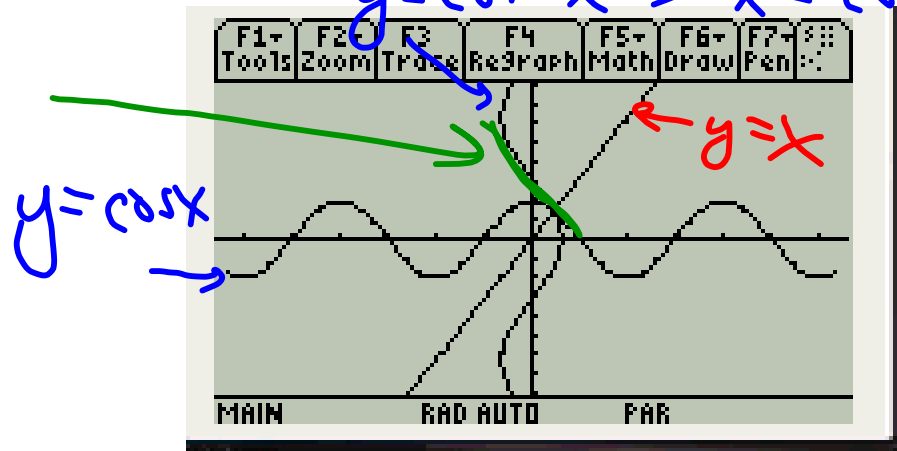
$$y = \cos^{-1} x$$

F1→	F2→	F3	F4	F5→	F6
Tools	Zoom	Edit	✓	Att	Stv

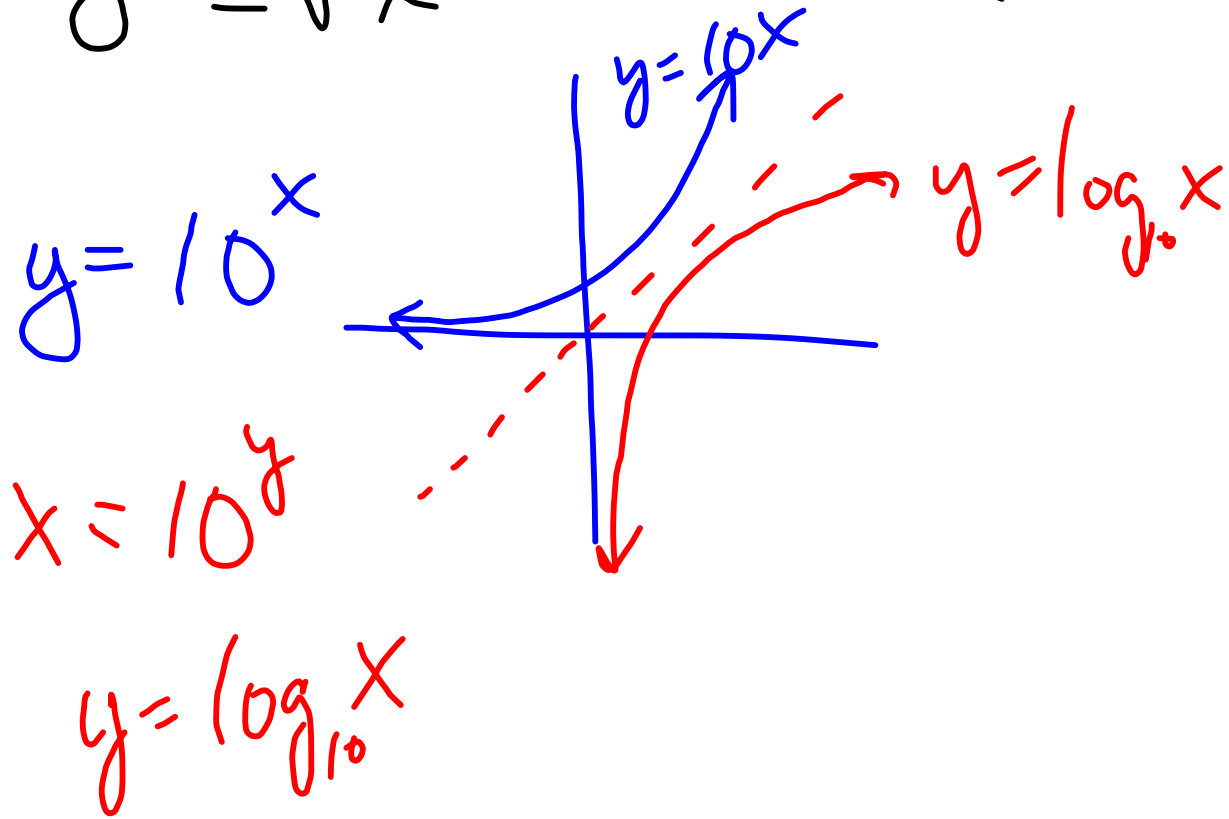
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*PLOTS
✓xt1=t
✓yt1=cos(t)
✓xt2=yt1(t)
✓yt2=xt1(t)
xt3=
yt3=
xt4=
xt3(t)=
  
```

$$y = \cos^{-1} x \Rightarrow x = \cos y$$



$y = x^2$
 $y = \pm \sqrt{x}$ } INV. OF EACH OTHER



O.T.L.

- CORRECT TODAY'S O.T.L.
- P.39 7-17 (ODD),
25-31 (ODD) * HAND SKETCH OF EACH
- KNOW TRIG REVIEW
- KNOW FACTS ABOUT INVERSES