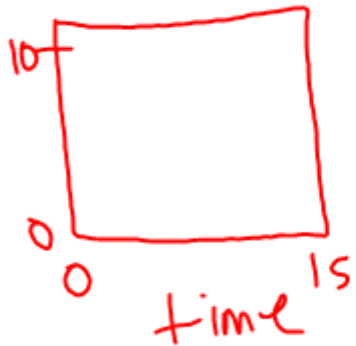


H.W. ?'s. 11, 15, 22, 20, 45

$$\textcircled{11} \quad Y = a(1 \pm r)^t$$

$$Y = 10(1 - .05)^t$$

$$Y = 10(.95)^x$$



$$\begin{array}{r} 0 \quad 9 \\ \cancel{10} \\ - \quad .05 \\ \hline \quad .95 \end{array}$$

$$15. \quad Y = a(1 \oplus r)^t$$

$$Y = 24(1 + .035)^{382}$$

1626 1627 1628

0 1 2

2008
382

$$Y = 24(1.035)^{382}$$

$$22. \quad A = P \left(1 + \frac{r}{n}\right)^{nt}$$

$$\begin{aligned} \frac{5000}{.05} &= P & a) \quad A &= 5000 \left(1 + \frac{.05}{4}\right)^{4 \cdot 5} \\ .05 &= r & & \\ 4 &= n & A &= \boxed{5000 (1.0125)^{20}} \\ & & & = \$6410.19 \end{aligned}$$



20

$$A = P(1.015)^n$$

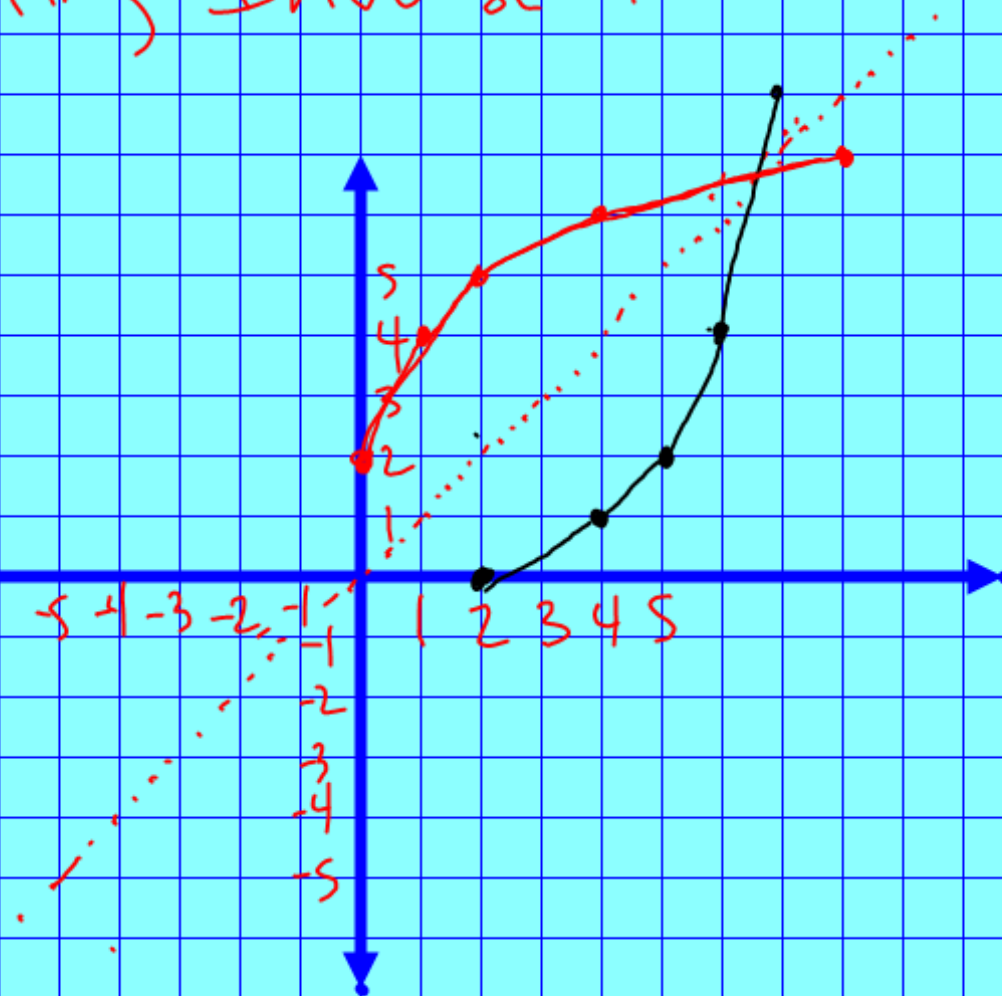
$$Y = 1000(1.015)^x$$



Ex.1 Graphing Inverse Relations.

X	Y
0	2
1	4
2	5
4	6
8	7

X	Y
2	0
4	1
5	2
6	4
7	8



Ex.2 Writing Inverse Functions by
Using Inverse Operations.

$$f(x) = 2x$$

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

√2a $f(x) = \frac{x}{3}$

$$f^{-1}(x) = 3x$$

$$f(x) = x + \frac{2}{3}$$

$$f^{-1}(x) = x - \frac{2}{3}$$

Ex.3 $f(x) = \frac{x}{4} - 5$

$$y = \frac{x}{4} - 5$$

Inverse $x = \frac{y}{4} - 5$

$$4(x+5) = \frac{y}{4} \cdot 4$$

$$4(x+5) = y$$

$$f^{-1}(x) = 4(x+5)$$

Ex.4

$$f(x) = 3x + 6$$

$$y = 3x + 6$$

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

$$\frac{x - 6}{3} = \frac{y}{3}$$

$$f^{-1}(x) = \frac{1}{3}x - 2$$

$$\frac{x - 6}{3} = y$$

$$\frac{1}{3}x - 2 = y$$

7.1 H.W. ?'s 15, 20, 22, 42, 11

①①

$$y = a(1 \pm r)^x$$

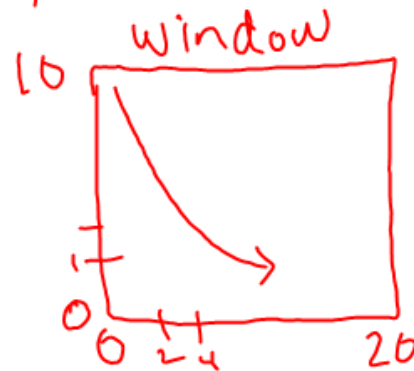
$$= 10(1 - .05)^x$$

a) $= 10(.95)^x$

b) see graph

c) $x=10$ $y=5.98$

d) $y=5$ $x \approx 13.5$



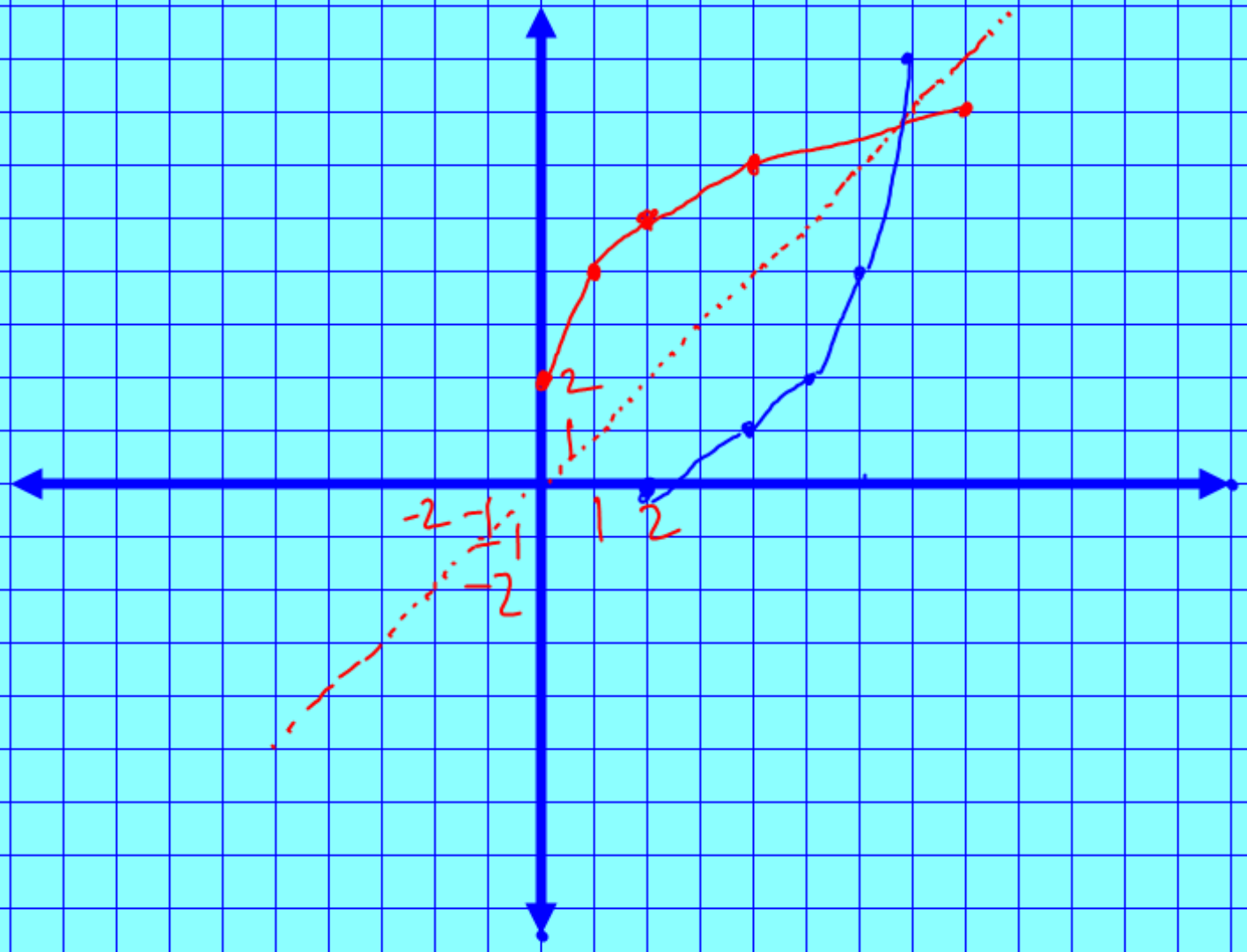
Date 12/10/09

Section 7.2

CA Standard #24.0

SWBAT:

$\frac{842-0}{154}$ $\frac{1245}{842-0}$



$$\text{Ex.2} \quad f(x) = 2x$$

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

$$\sqrt{2a} \quad f(x) = \frac{x}{3}$$

$$f^{-1}(x) = 3x$$

$$\sqrt{2b} \quad f(x) = x + \frac{2}{3}$$

$$f^{-1}(x) = x - \frac{2}{3}$$

Ex.3

$$Y = \frac{x}{4} - 5$$

$$x = \frac{y}{4} - 5$$

$$+5 \qquad +5$$

$$4(x+5) = \frac{y}{4} \cdot 4$$

$$y = 4(x+5)$$

$$f^{-1}(x) = 4(x+5)$$

$$\text{Ex.4} \quad f(x) = 3x + 6$$

$$y = 3x + 6$$

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

$$\frac{x - 6}{3} = \frac{y}{3}$$

$$\frac{1}{3}x - 2 = y$$

$$f^{-1}(x) = \frac{1}{3}x - 2$$

$$\begin{aligned}
 \text{IS: } Y &= a(1 \pm r)^x \\
 &= 24(1 + .035)^x \\
 &= \frac{24(1.035)^{382}}{\text{use calculator}}
 \end{aligned}$$

1626

1627

.....

2008

 $t=0$ $t=1$ $t=382$

$$\begin{array}{r}
 2008 \\
 -1626 \\
 \hline
 \end{array}$$

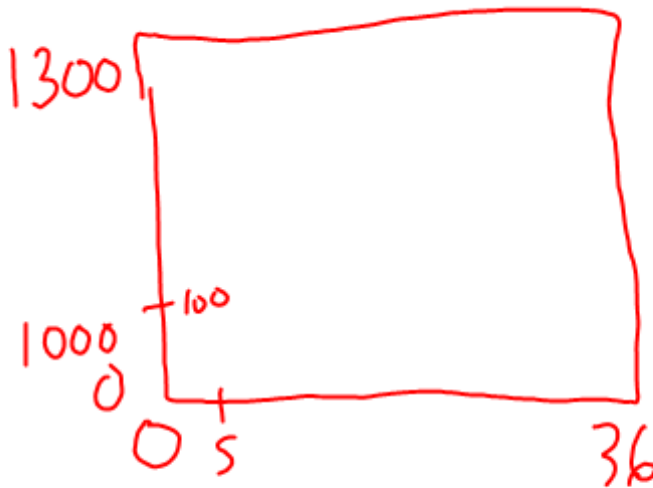
$$\approx \$12,000,000$$

20.

$$A = \underline{P} (1.015)^n$$

$$Y = 1000 (1.015)^x$$

a) see graph.



22. $A = P \left(1 + \frac{r}{n}\right)^{nt}$

P 5000
r .05
n 4

a) $y = 5000 \left(1 + \frac{.05}{4}\right)^{4 \times 5}$
 $= 5000 \left(1 + \frac{.05}{4}\right)^{20}$
 $= 5000 (1 + .0125)^{20}$
 $= 5000 (1.0125)^{20}$

$\approx \$6410.19$

b) graph $y = 5000(1.0125)^{4x}$
 apx 14 yrs

