

Review day 2 hw

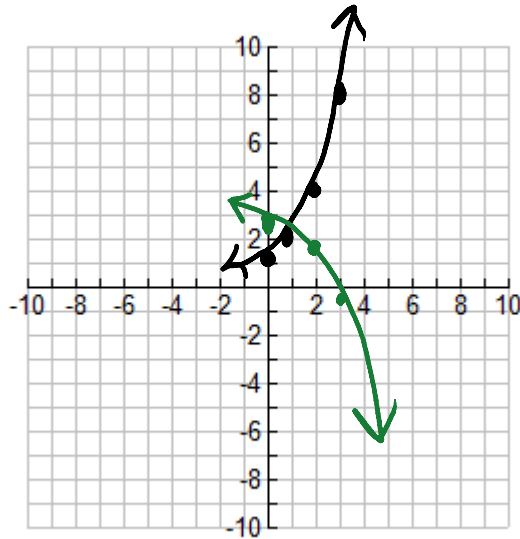
Tuesday, January 14, 2014
3:06 PM

pg. 381 #54, 70, 73, 74

54. $g(x) = 3 - \frac{1}{3} \cdot 2^x$ $f(x) = 2^x$

vert. shrink by $\frac{1}{3}$
reflect across x-axis

up 3



70. $2 = 1(1 + .03)^x$

$$\log_{1.03} 2 = x$$

$$x = 23.4 \text{ years}$$

73. A) $N = 1(2)^{t/1/2} = N = 1(2)^{2t} = 4^t$

B) $1,000,000,000 = 4^t$

$$\log_{4,1} 1 \text{ BLN} = t$$

$$t = 15 \text{ days}$$

$$76. \quad M = \frac{2}{3} \log \left(\frac{1.99 \times 10^{14}}{10.4.4} \right)$$

$$= 6.6$$