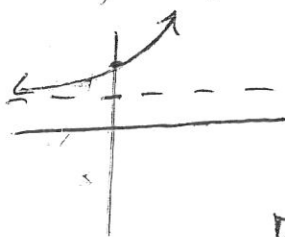


HW - 4.3 (p. 284-285
#s 37, 81)

37.) $f(x) = 2^x + 1$



transformations

① $y = 2^x$ moved
up 1

Domain: \mathbb{R}

Range: $y > 1$

HA: $y = 1$

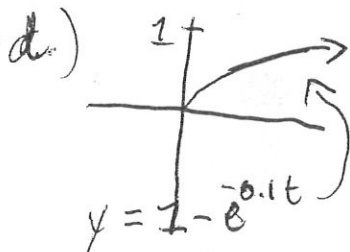
81.) a.) $F(10) = 1 - e^{-0.1(10)} = 0.63$

b.) $F(40) = 1 - e^{-0.1(40)} = 0.98$

c.) $\lim_{t \rightarrow \infty} 1 - e^{-0.1t} = \boxed{1}$

b/c $\lim_{t \rightarrow \infty} e^{-0.1t} = \lim_{t \rightarrow \infty} \frac{1}{e^{0.1t}} = 0$

So $1 - 0 = 1$



e.) use trace
Feature on calc
- what is t -value
when $y = 0.50$
 $t \approx 7$ mins