



## Advanced Math pg 317

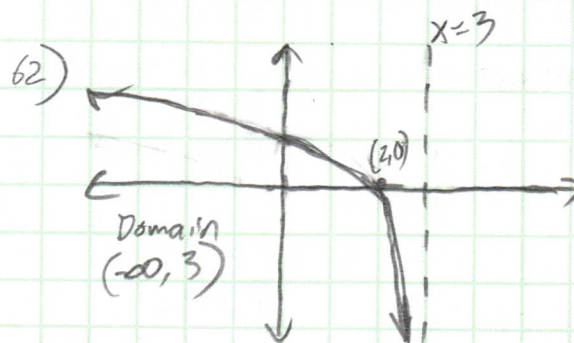
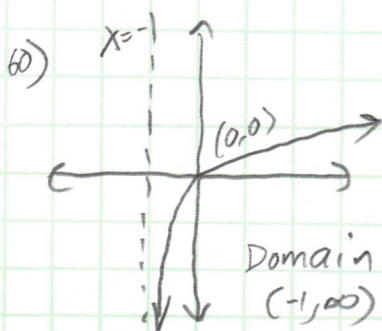
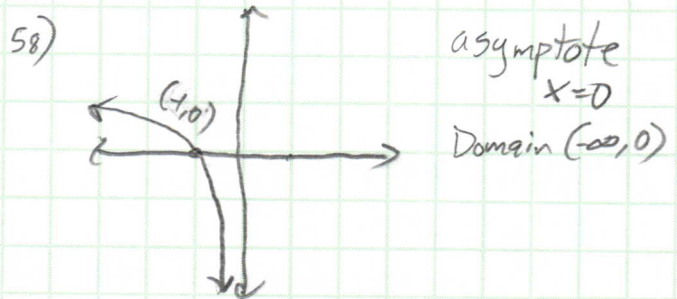
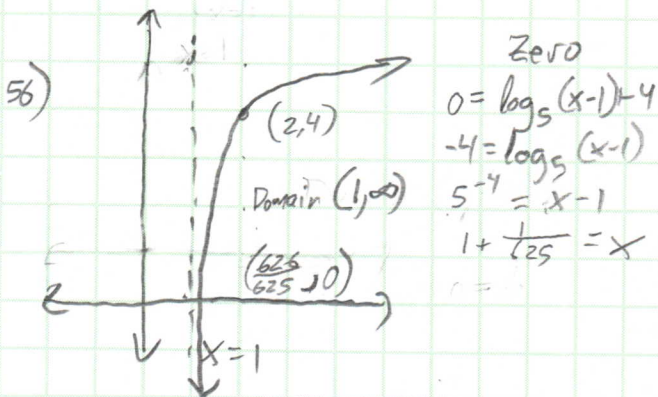
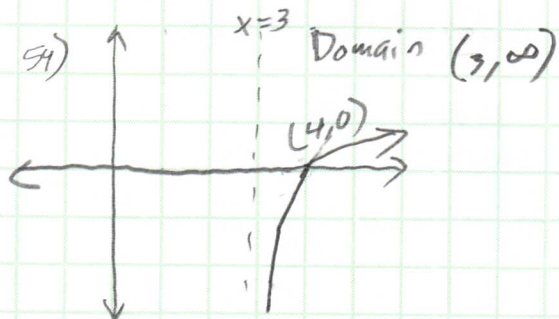
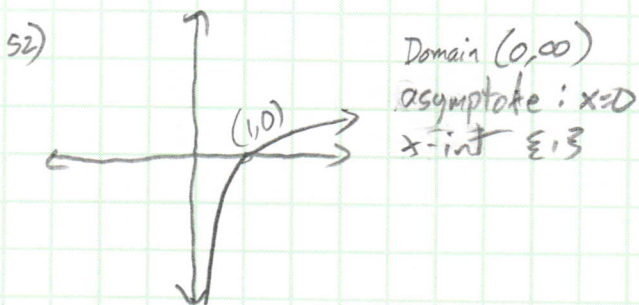
2)  $3^4 = 81$     4)  $10^{-3} = \frac{1}{1000}$     6)  $16^{\frac{3}{4}} = 8$     8)  $e^{1.386} = 4$     10)  $\log_8 64 = 2$

12)  $\log_9 27 = \frac{3}{2}$     14)  $\log_{10} (0.001) = -3$     16)  $\ln 1 = 0$     18)  $\log_u w = v$

20) -3    22)  $\frac{2}{3}$     24) 3    26) 1    28)  $\frac{5}{2}$     30) 2    32) -0.097

34) 1.097    36) 1.869    38) -1.444    40) -0.288

45) c    46) F    47) d    48) e    49) b    50) a



$$75) 17.658 \text{ ft}^3/\text{min}$$

$$76) a) \frac{450}{30} = 15 \text{ ft}^3/\text{min}$$

$$b) \boxed{382.013 \text{ ft}^3} \leftarrow \text{graph } y=15 \text{ calc intersect.}$$

$$c) \frac{382.013 \text{ ft}^3}{30 \text{ ft}} = 12.734 \text{ ft}^2/\text{student}$$

$$\text{thn } \underset{\substack{\uparrow \\ \text{amt}/ \\ \text{student}}}{(12.734)} \times \underset{\substack{\uparrow \\ \text{\# of} \\ \text{students}}}{(30)} = \boxed{382.013 \text{ ft}^2}$$

$$77) 21357.0 \approx 3 \text{ Ft-lbs}$$

$$78) a) 120 \text{ dB}$$

$$b) 100 \text{ dB}$$

c) No, it varies logarithmically not directly.

$$79) 30 \text{ years}$$

$$80) 10 \text{ years}$$

$$81) (1316.35)(30)(12) = 473886$$

$$\text{interest } 473886 - 150000 = \boxed{\$323886}$$

$$82) (1982.26)(10)(12) = 237871.20$$

$$237871.20 - 150000 = \boxed{\$87871.20}$$