

ASSIGNED WORK

pg. 135 #1-4, 7, 8, 25, 27-29, 34, 39, 46, 47, 49

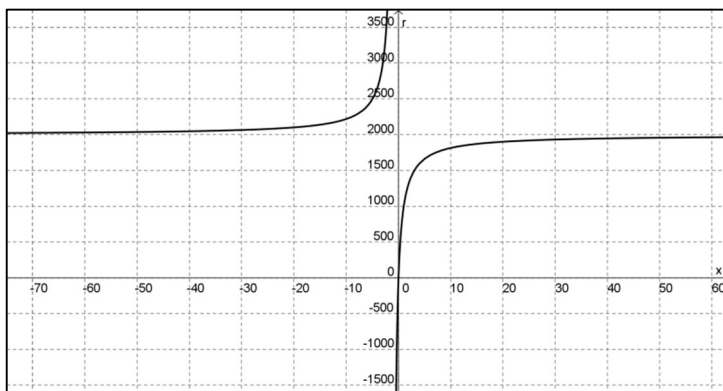
ANSWERS FOR EVEN NUMBER QUESTIONS

2) a) $A = \frac{C^2}{4\pi}$ b) $\frac{dA}{dC} = \frac{C}{2\pi}$ c) $\frac{1}{2}, 3$ d) in^2/in

4) a) $A = 2r^2$ b) $\frac{dA}{dr} = 4r$ c) 4, 32 d) in^2/in

8) 8000 gallons/minute, 10 000 gallons/minute

28) a)



b) $\frac{2000}{(x+1)^2}$

c) Approximately \$55.56

d) 0. As x becomes large, we reach a point where very little extra revenue can be expected from selling more desks.

34) a) $16\pi \text{ ft}^3/\text{ft}$ b) Approximately 11.092 ft^3

46) At $t = 0$: 10 000 bacteria/hour

At $t = 5$: 0 bacteria/hour

At $t = 10$: -10 000 bacteria/hour