

HW 4 algebra 2

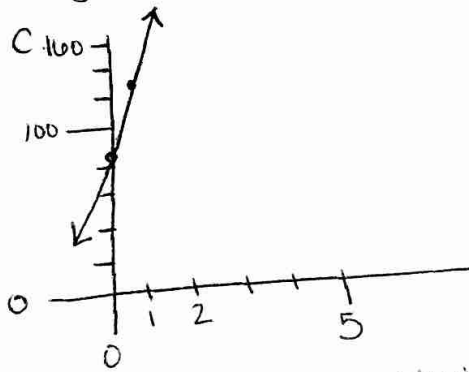
6) a. $u_n = 6.3 + 2.5n$
 $\uparrow \quad \uparrow$
 $u_0 \quad cD$

b. they say $u_n = 78.8$

$$\begin{array}{r} 78.8 = 6.3 + 2.5n \\ -6.3 \quad -6.3 \\ \hline 72.5 = 2.5n \\ \boxed{29 = n} \end{array}$$

7) a. $54(2) + 82 = 190 \text{ mi.}$

b. $y = 54x + 82$



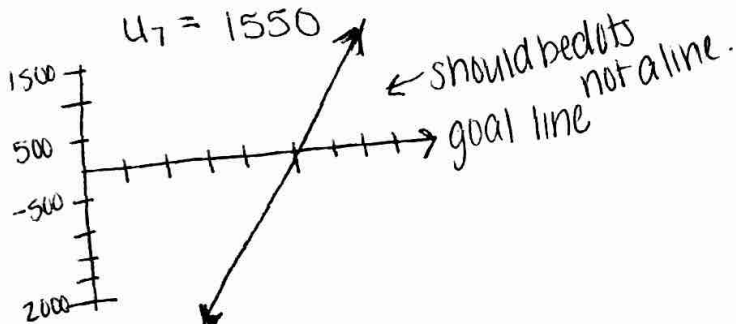
d. If you say only to measure by whole #'s then yes, but it is continuous.

8) OPTIONAL

a. If n is cars then

$$u_3 = -2650$$

$$u_7 = 1550$$



8) b. The profit per car

$$c. u_n = -4750 + 900n$$

\uparrow
 find n is cars
 y -int. u_n is above of below goal \$

d. the horizontal intercept is the "break even" the vertical intercept is how low you go if you sell 0 cars.

12) a. $u_1 = 16, u_n = u_{n-1} + 32, n \geq 2$
 b. $u_n = 32n - 16$ or $u_n = 16 + (n-1)(32)$

c. $u_{10} = 32(10) - 16 = 304 \text{ ft}$

d. $u_n = 400 = 32n - 16$

$$416 = 32n$$

$$\boxed{13 \text{ sec} = n}$$

13) The 1st choice would always be the best option. because \$500 every 6 months is 1,000/yr.