Chp 5.5 Notes B

1. The number of firearm-related deaths in the United States for various years are shown in the table below.

Firearm-Related U.S. Deaths

Year	Firearm-Related Deaths (thousands of deaths)
1993	(thousands of deaths)
1995	36
1997	32
1999	29
2000	28

Source: Centers for Disease Control & Prevention

(a) Use your graphing calculator to plot a scattergram of the data. Then use the space below to find the equation of a line that approximates the data well.

Let n represent the number (in thousands) of firearm-related deaths t years since 1990.

$$m = \frac{(3,40)}{(10,28)} \rightarrow \frac{-12}{7} \approx 7.71$$
 $P4: (3,40)$

$$m = \frac{(3,40)}{(10,28)} \implies \frac{-12}{7} \approx 7.71 \qquad n = -1.71 \pm 1.6$$

$$40 = -1.71(3) \pm 6$$

$$40 = -5.14 \pm 6$$

$$45.14 = 6$$

(b) What is the slope of your model and what does it mean in this situation?

M= -12/7 %-1,7/ -> THE NUMBER OF FIREDRM RELATED DEATHS
IN THE U.S. IS DECREPSING AT A RATE of
12,000 EVERY 7 YRS OR ASOUT 1700/YR

(c) What is the n-intercept and what does it mean in this situation?

D-10+: WHEN t=0 SO D= 45.14

- IN 1990 THERE WERE PROUT 45 000 FIREMAN RELATED (d) When does your model predict there will be no firearm-related deaths in the U.S.?

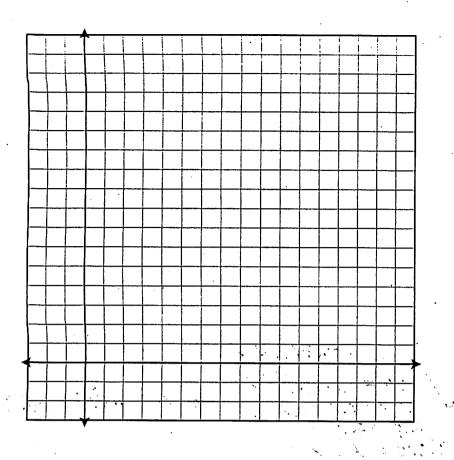
$$0 = -1.71t + 45.14$$

$$-45.14 - 45.14$$

$$-45.14 = -1.71t$$

$$\frac{-45.14 = -1.71t}{-1.71}$$

263 % t ->



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