



Advanced Math

pg 131 Word Problems

90) $(0, 32)$ $(100, 212)$

$$m = \frac{212 - 32}{100 - 0} = \frac{180}{100} = \frac{9}{5}$$

$$F = \frac{9}{5}C + b$$

note: $b = y\text{-int}$
 $(0, 32)$

$$F = \frac{9}{5}C + 32$$

92)

C	-17.8°	-10°	10°	20°	32.3°	177°
F	0°	14°	50°	68°	90°	350.6°

I graphed $y = \frac{9}{5}x + 32$ use x min -40
x max 200
Zoom Fit

94) $(4, 2546)$ $(6, 2702)$

$$\frac{2702 - 2546}{6 - 4} = 78$$

1996-2000 \rightarrow 4 years
 $\times 78 \text{ people/year}$

$$312 + 2702 = 3014$$

96) (yrs, val)

$(0, 25000)$ $\frac{25000 - 20000}{0 - 10} = -2300$

$(10, 2000)$

$$V(x) = -2300x + 25000$$

95) (yrs, val)

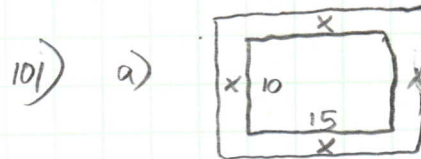
$(0, 875)$ $\frac{875 - 0}{0 - 5} = -175$

$(5, 0)$

$$V(x) = -175x + 875$$

97) $S(L) = .85L$

98) $W(x) = .75x + 11.50$



b) $y = 2(15 + 2x) + 2(10 + 2x)$

c) Graph It! use x min 0
x max 20
Zoom Fit

100) (rent, demand)

$(580, 50)$ $\frac{50 - 47}{580 - 625} = -\frac{1}{15}$

$(625, 47)$

a) $p = -\frac{1}{15}x + b$ $p = -\frac{1}{15}x + 88\frac{2}{3}$

$47 = -\frac{1}{15}(625) + b$

b) $p = -\frac{1}{15}(155) + 88\frac{2}{3}$

$$p = 45$$

c) $p = -\frac{1}{15}(575) + 88\frac{2}{3}$

$$p = 49$$

d) Trace to 2 points

$(10, 130)$ $\frac{130 - 90}{10 - 5} = \frac{40}{5}$

$(5, 90)$

$$m = 8$$



102) $W = .07 S + 2500$

103) $C = .26x + 120$

104) a) $12000 - x$

b) $y = .055x + .08(12000 - x)$

c) Graph it! use $x_{min} = 0$
 $x_{max} = 12000$
 $x_{scl} = 1200$

** I usually set x_{scl} to $1/10$ of x_{max} . It makes the graph look better. Try some different values here! **

d) More money in the $5\frac{1}{2}\%$ interest category results in less Interest Earned.

107) d

108) c

109) a

110) b