Chapter 8-1 E

NAME _____ DATE _____ PERIOD _____

Homework Practice

Functions and Equations

Write an equation to represent each function.

1.

Input, x	1	2	3	4	5
Output, y	7	14	21	28	35

$y = 7x$

2.

Input, x	0	1	2	3	4
Output, y	0	9	18	27	36

$y = 9x$

3.

Input, x	1	2	3	4	5
Output, y	13	26	39	52	65

$y = 13x$

4.

Input, x	10	20	30	40	50
Output, y	1	2	3	4	5

$y = \frac{x}{10}$ (or $y = \frac{1}{10}x$)

5.

Input, x	0	1	2	3	4
Output, y	1	6	11	16	21

$y = 5x + 1$

6.

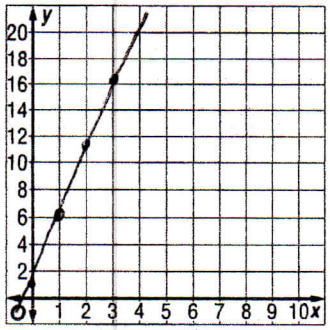
Input, x	4	8	12	16	20
Output, y	21	37	53	69	85

$y = 4x + 5$

Graph each equation.

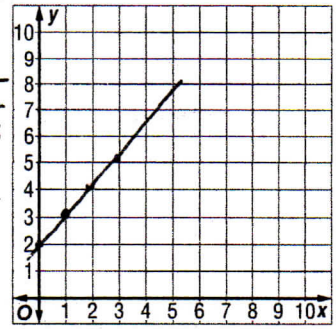
7. $y = 5x + 1$

x	y
0	1
1	6
2	11
3	16



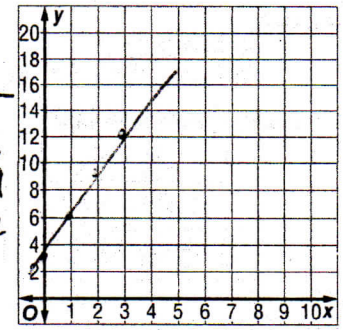
8. $y = x + 2$

x	y
0	2
1	3
2	4
3	5



9. $y = 3x + 3$

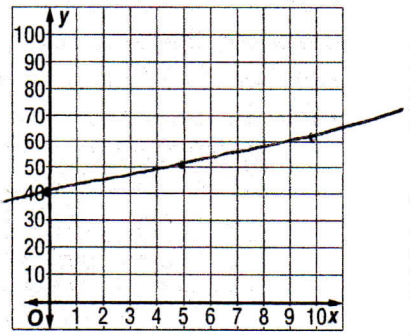
x	y
0	3
1	6
2	9
3	12



10. TELEPHONE A cell phone company charges \$40 per month plus \$2 for each minute of time used out of the service area. The equation $y = 40 + 2x$ describes the amount y that a cell phone user would pay if they used the phone for x minutes out of the service area. Graph the function.

$y = 40 + 2x$

x	y
0	40
1	42
2	44
3	46



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Chapter 8-1 E

NAME _____ DATE _____ PERIOD _____

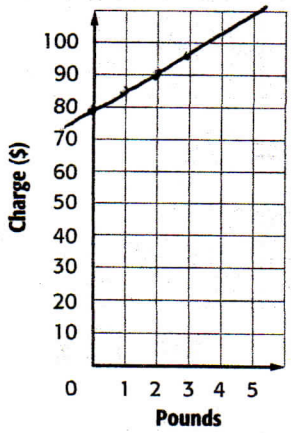
Problem-Solving Practice

Functions and Equations

1. FISHING A lake owner charges \$80 for a day's guided fishing trip, plus \$5 for each pound of fish caught. The equation $c = 80 + 5p$ describes the total charge c for the number of pounds p of fish. Make a function table for the input-output values.

p	$80 + 5p$	c
0	80+(0)5	80
1	80+5(1)	85
2	80+5(2)	90
3	80+5(3)	95

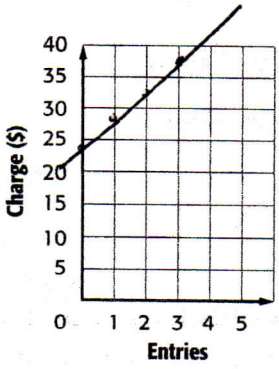
2. Graph the function from Exercise 1.



3. MAGAZINE A writer's magazine subscription costs \$24 per year plus \$4 for each writing contest the subscriber enters. The equation $c = 24 + 4w$ describes the total charge c for the number of contest entries w. Make a function table for the input-output values.

w	$24 + 4w$	c
0	24+4(0)	24
1	24+4(1)	28
2	24+4(2)	32
3	24+4(3)	36

4. Graph the function from Exercise 3.



5. DAY CARE A day care center charges \$75 per week for one child, plus \$30 per sibling. The equation $t = 75 + 30s$ describes the total charge t for the number of siblings s. Make a function table for the input-output values.

s	$75 + 30s$	t
0	75+30(0)	~~105~~ 75
1	75+30(1)	105
2	75+30(2)	135
3	75+30(3)	165

6. Graph the function from Exercise 5.