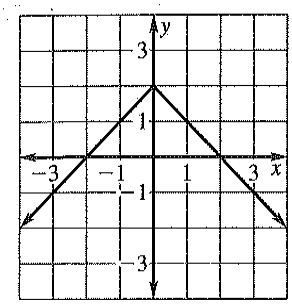
Name_____**Date**_____**Hour**_____

Worksheet 4.8 – Functions and Relations – Textbook pages 256-262

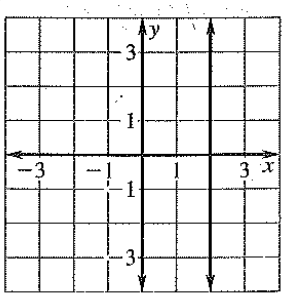
LEVEL 1

Determine whether the following graphs represent *y* as a function of *x*. Explain your reasoning.

1) _____

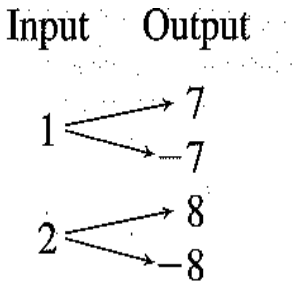


2) _____



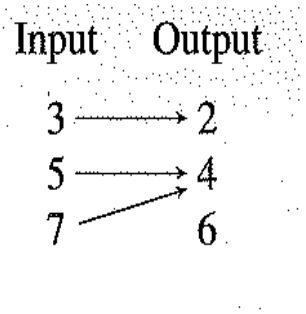
Determine whether the following relations are functions. If they are, give the domain and range.

3)



_____

4)



_____

LEVEL 2

Evaluate the following functions when $x = 3$, $x = 0$ and $x = -2$. Show your work.

5) $f(x) = 2x - 5$

$x = 3$; $f(x) =$ _____

$x = 0$; $f(x) =$ _____

$x = -2$; $f(x) =$ _____

6) $g(x) = 6x + 2$

$x = 3$; $g(x) =$ _____

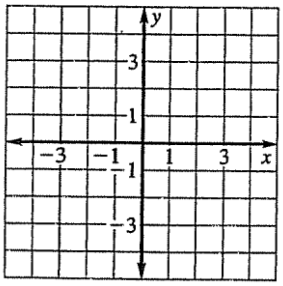
$x = 0$; $g(x) =$ _____

$x = -2$; $g(x) =$ _____

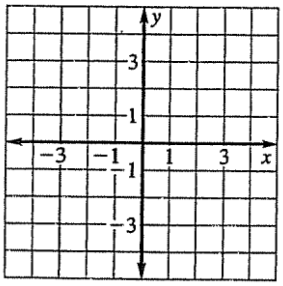
LEVEL 3

Graph the function.

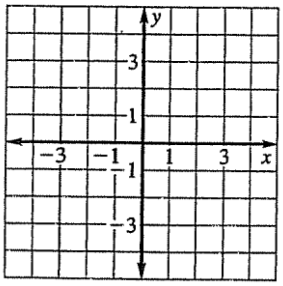
7) $h(x) = -x + 4$



8) $f(x) = \frac{1}{2}x - 4$



9) $g(x) = 5x$



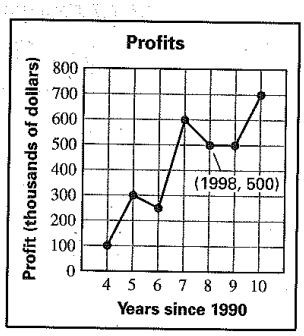
LEVEL 4

Decide whether the relation is a function. If it is a function, give the domain and range.

10)

Input Area Code	*Output ZIP code*
907	99801
916	94203
916	94204
850	32306
217	62706

11)



12)

Football Attendance The table gives the attendance at a football championship for five consecutive years. Is attendance a function of the number of years since 1993? Why, or why not?

Years since 1993	1	2	3	4	5
Attendance	72,817	74,107	76,347	72,301	68,912