Functions F1 – The Basics

For 1 – 8: a) find the domain and range of the relation.

b) Determine if the relation is a function (yes or no).

1. {(5, 2), (3, 2), (1, 1), (2, 5)}

D: {1, 2, 3, 5}
R: {1, 2, 5}

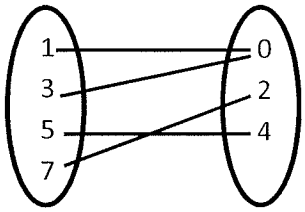
Yes, no repeating x values

2. {(4, 4), (2, 2), (1, 1), (3, 0)}

D: {1, 2, 3, 4}
R: {0, 1, 2, 4}

Yes, no repeating x values

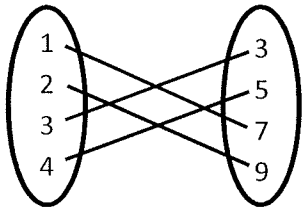
3



D: {1, 3, 5, 7}
R: {0, 2, 4}

Yes

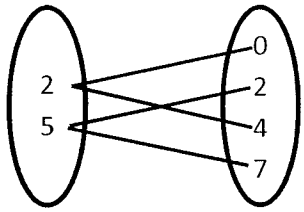
4.



D: {1, 2, 3, 4}
R: {3, 5, 7, 9}

Yes

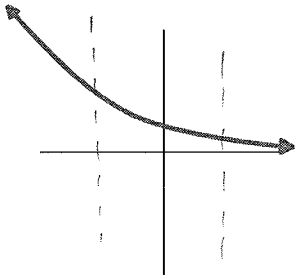
5.



D: {2, 5}
R: {0, 2, 4, 7}

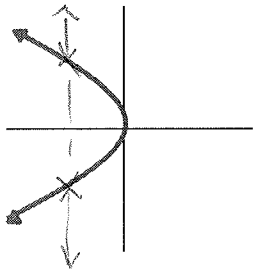
No

6.



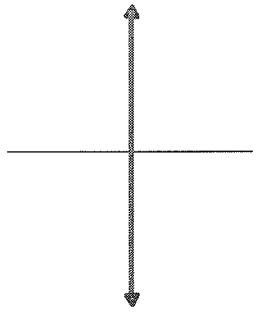
Yes

7.



NO

8.



NO

For 9 – 12, $f(x) = x - 5$, $g(x) = x^2 + 5x$, and $h(x) = |2x|$

Find: 9. $f(2)$ 10. $g(-5)$ 11. $h(-1)$ 12. $g(1)$

$f(2) = 2 - 5$
$= -3$

$g(-5) = (-5)^2 + 5(-5)$
$= 25 - 25$
$= 0$

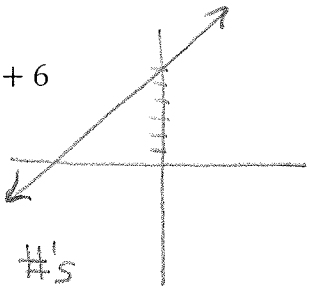
$h(-1) = |2(-1)|$
$= |-2|$
$= 2$

$g(1) = 1^2 + 5(1)$
$= 1 + 5$
$= 6$

For 13 – 14: Graph each and determine if it is a function or not. If YES, state its domain and range.

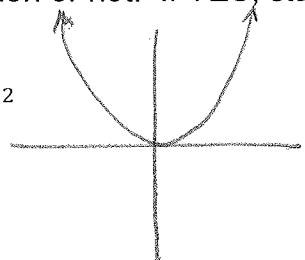
13. $f(x) = x + 6$

Yes



D: All Real #'s
R: All Real #'s

14. $f(x) = x^2$



Yes

D: All Real #'s
R: $y \geq 0$