

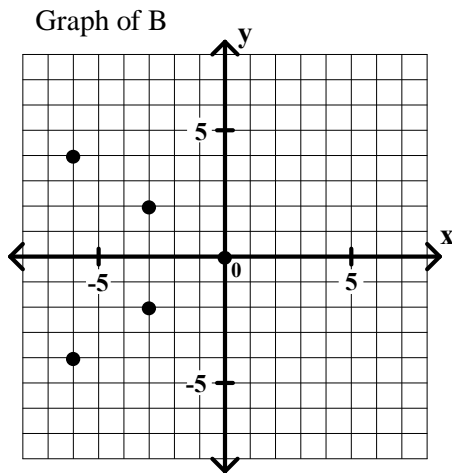
## General Algebra II Worksheet #3 Unit 6 Selected Solutions page 1

In each problem below a relation is given using the listing method. In each case you are to

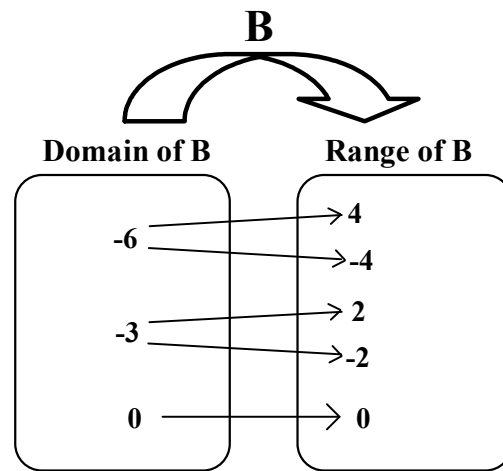
- (a) graph the relation,
- (b) complete the mapping diagram for the relation, and
- (c) determine whether or not the relation is a function (write yes or no).

2.  $B = \{(-6, 4), (-6, -4), (-3, 2), (-3, -2), (0, 0)\}$

(a)



(b)



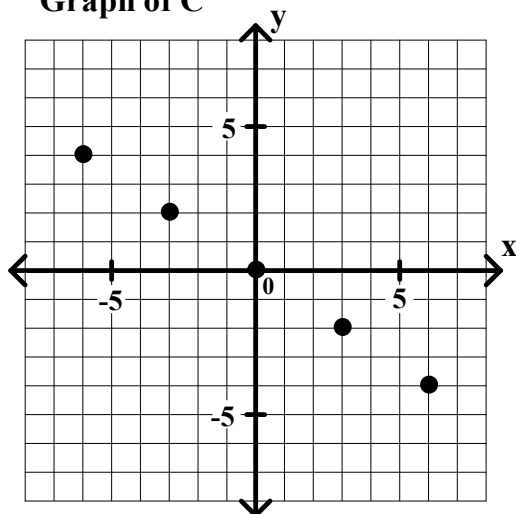
(c) Is relation B a function? no

In each problem below a relation is given using a graph. In each case you are to

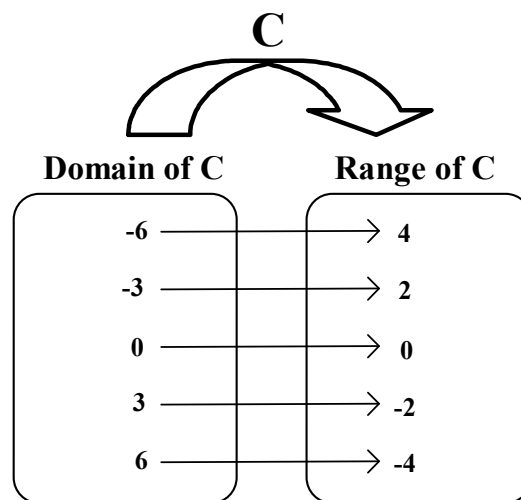
- (a) describe the relation using the listing method and
- (b) complete the mapping diagram for the relation.
- (c) determine whether or not the relation is a function (write yes or no).

3. (a)  $C = \{(-6, 4), (-3, 2), (0, 0), (3, -2), (6, -4)\}$

Graph of C



(b)



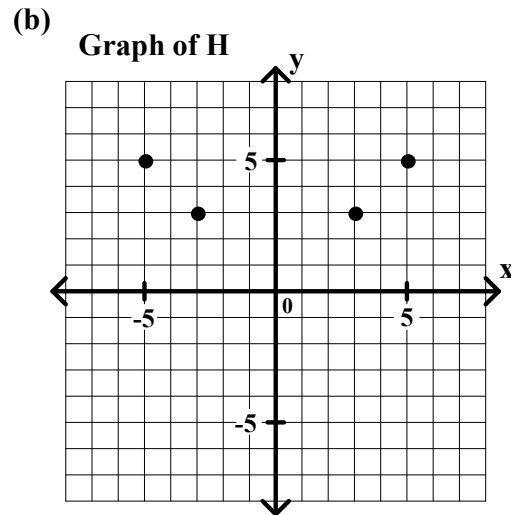
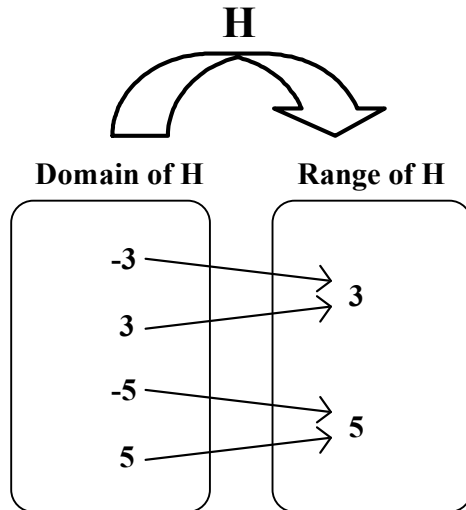
(c) Is relation C a function? yes

## General Algebra II Worksheet #3 Unit 6 Selected Solutions page 2

In each problem below a relation is given using a mapping diagram. In each case you are to

- (a) describe the relation using the listing method and
- (b) graph the relation.
- (c) determine whether or not the relation is a function (write yes or no).

6. (a)  $H = \{ (-3, 3), (3, 3), (-5, 5), (5, 5) \}$



(c) Is relation H a function? yes

Given: Functions  $f = \{ (x,y) : y = -3x + 5 \}$  and  $g = \{ (x,y) : y = 3x^2 - 2 \}$ . Evaluate each of the following.

7.  $f(-2) = \underline{11}$

12.  $g(3) = \underline{25}$

Given: Functions H and L defined by the equation  $H(x) = 5x + 7$  and  $L(x) = -2x^3 - 1$ . Evaluate each of the following.

15.  $H(3) = \underline{22}$

16.  $L(-2) = \underline{15}$

Given the function P defined by this graph.

19. What is the domain of P?  $[-5, 7]$

20. What is the range of P?  $[-2, 6]$

Evaluate each of the following.

21.  $P(-2) = \underline{0}$

22.  $P(0) = \underline{-2}$

23.  $P(3) = \underline{-1}$

