Pre-Algebra   Name: _Key_
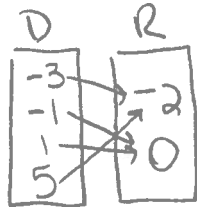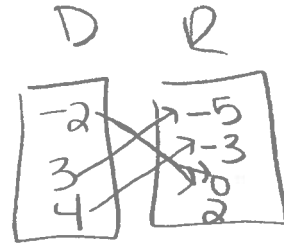**U7L1 (8-1) Practice**

1. Draw a mapping diagram of the following relations. Then, decide if each relation is a function and explain why or why not.

   a. {(-3, -2), (-1, 0), (1, 0), (5, -2)}
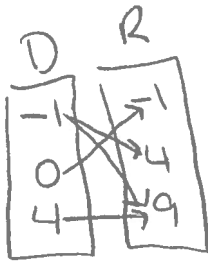
   yes
   each x
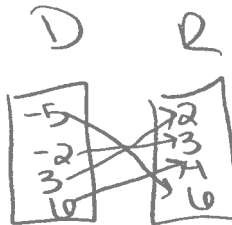   has one y

   c. {(3, -5), (-2, 0), (4, -3), (-2, 2)}

   no
   -2 → 0
   -2 → 2

   b. {(-1, 9), (0, -1), (-1, 4), (4, 9)}

   no
   -1 → 4
   -1 → 9

   d. {(-5, 6), (-2, 3), (3, 2), (6, 4)}

   yes
   each x
   has one y

2. Is the price of a one-year subscription to your favorite magazine a function of the age of the subscriber? Explain.

   D: age of subscriber

   R: price of subscription

   no
   price does
   not depend on
   age

3. Is the length of a rectangle a function of the area of the rectangle?

   D: area

   R: length

   no
   area depends on length

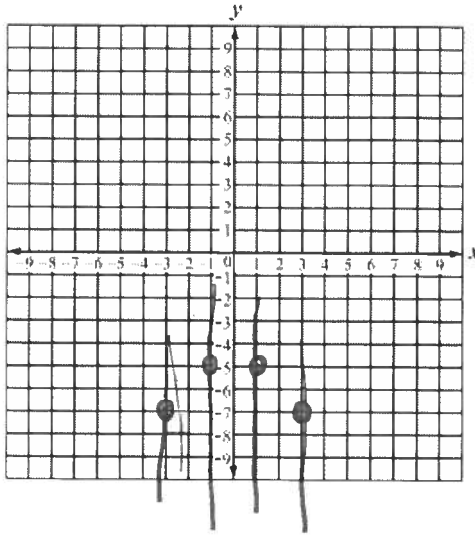4. Is the price of stamps a function of how many stamps your purchase?

   D: #stamps

   R: price

   yes
   • price depends on #
   • each # has different price

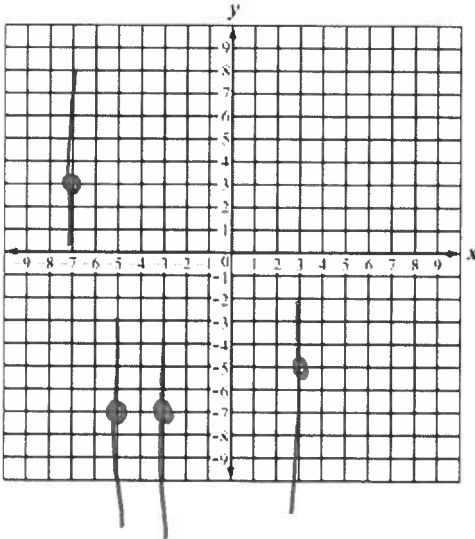5. Graph each relation. Is the relation a function? Explain.

a.

x	y
3	-7
1	-5
-1	-5
-3	-7

yes
each vertical
line hits
only one
point

b.

x	y
-7	3
-5	-7
3	-5
-3	-7

yes
each vert
line hits
only one
point

c.

x	y
6	-2
1	0
0	1
6	8
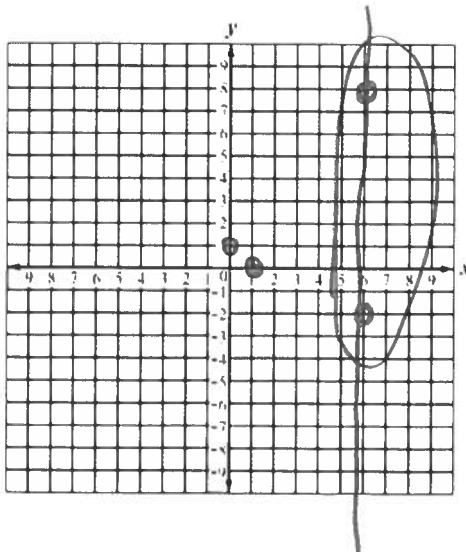
no
vert line
hits two
points