

5.3 Relations as Ordered Pairs

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A set of ordered pairs is known as a relation. A relation can also be expressed as an equation, as a table of values, or in words.

Use each of the following equations.

- a) Complete the table of values.
- b) Describe the relation in words.
- c) Write the ordered pairs.

1. $x + y = 4$

a)

x	y
3	
1	
-2	
-5	
-7	

b) _____

c) _____

2. $x - y = 3$

a)

x	y
4	
0	
-1	
-3	
-6	

b) _____

c) _____

3. $y = x + 5$

a)

x	y
3	
1	
-2	
-5	
-7	

b) _____

c) _____

4. $y = 3x - 1$

a)

x	y
3	
2	
0	
-2	
-3	

b) _____

c) _____

5. For the equation $x + y = 7$, find the missing value in each ordered pair.

- a) $(3, \square)$
- b) $(7, \square)$
- c) $(\square, 1)$
- d) $(\square, 0)$
- e) $(-2, \square)$
- f) $(-4, \square)$

6. For the equation $y = x - 5$, find the missing value in each ordered pair.

- a) $(2, \square)$
- b) $(6, \square)$
- c) $(\square, 1)$
- d) $(0, \square)$
- e) $(-3, \square)$
- f) $(\square, 3)$

7. List 5 ordered pairs of a relation for which the y -value is always 3 less than the x -value.

8. List 5 ordered pairs of a relation for which the x -value is always 4 times the y -value.

9. a) Make up a table of values where there is a relationship between the values of x and y .

x	y

b) Write an equation for the relation.
