Name _____

5.3 Relations as Ordered Pairs

MATHPOWER™ *Eight*, pp. 156–158

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, ☐) **b)** (7, ☐) **c)** (☐, 1)
d) (☐, 0) **e)** (−2, ☐) **f)** (−4, ☐)

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

a) (2, ☐) **b)** (6, ☐) **c)** (☐, 1)
d) (0, ☐) **e)** (−3, ☐) **f)** (☐, 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.

_____