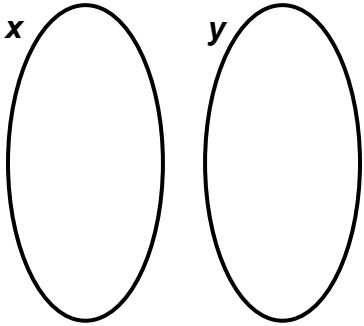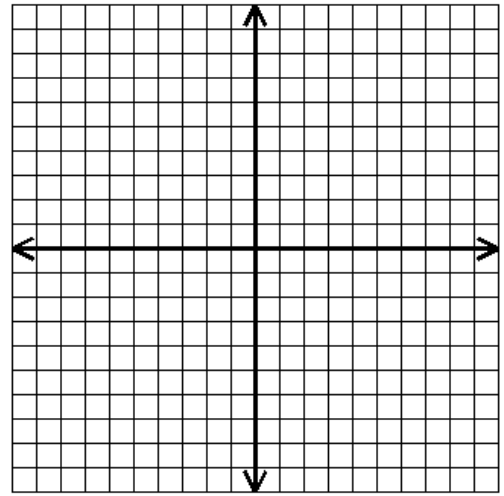NAME_____DATE_____PER._____

RELATIONS AND FUNCTIONS – DAY 1

Make a table and a mapping for the relation shown. State the domain and range. Determine whether or not the relation is a function.

1. {(8, 2), (4, 2), (8, -9), (7, 5), (-3, 2)}

x ⟠   y ⟠

x	y

D =_____   R =_____

Function?_____

2. {(4, 2), (2, 1), (1, -5), (5, 22)}

D = _____

R =_____

Function?_____

x	y

x ⟠   y ⟠
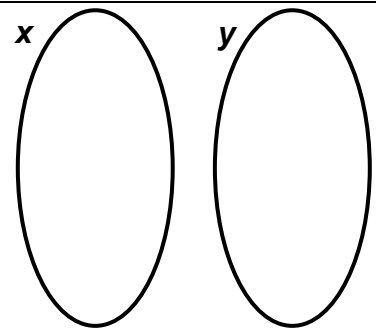
3. {(4, 3), (-2, 3), (7, 3), (9, 3)}

D = _____

R =_____

Function?_____

x	y

x ⟠   y ⟠
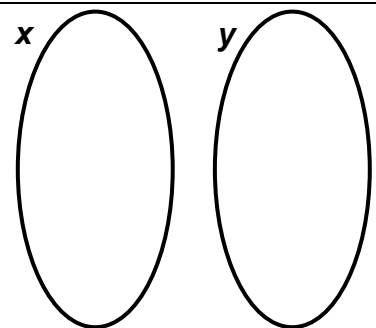
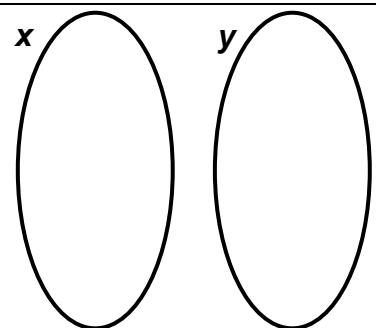4. {(5, -1), (5, 7), (5, -2), (5, -3)}

D = _____

R =_____

Function?_____

x	y

x ⟠   y ⟠

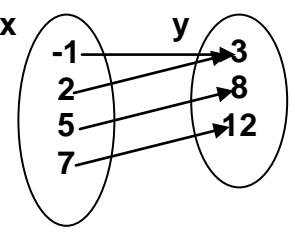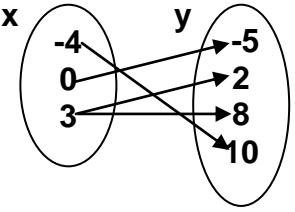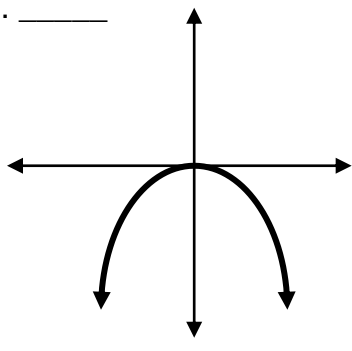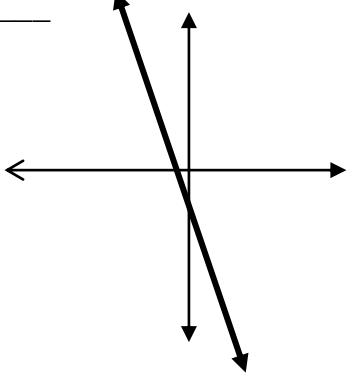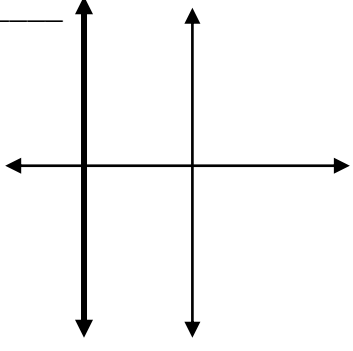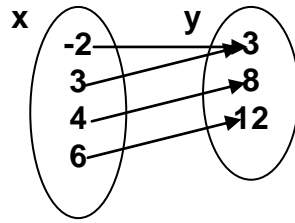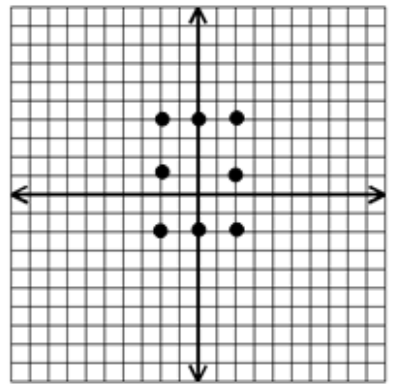**Make a table for the given relation. State the domain and range. Determine if the relation is a function.**

5.

x	y

D = _____

R = _____

Function?_____

6.

x	y

D = _____

R = _____

Function?_____

Using the vertical line test, determine if the relation is a function.

7. _____

8. _____

9. _____

10.

Ordered Pairs:

_____

D=_____

R=_____

Function?_____

11.

Ordered Pairs:

_____

D=_____

R=_____

Function?_____

12.

# of people	Cost ($)
1	28
2	50
3	80
4	100

Ordered Pairs:

_____

D=_____

R=_____

Function?_____

Answer each of the following.

13. Jane and Terry went to Long Island for a week. They needed to rent a car, so they checked out two rental firms. Avis wanted $28 per day with no mileage fee. Hertz wanted $108 per week and $0.14 per mile. How many miles would they have to drive before the Avis price is the same as the Hertz's price?

14. Roger is buying a car costing $16,500. He can put $3000 down and pay $500 per month. How many months will it take for Roger to pay for the car?

15. Mr. Roberts needs to rent a car for a vacation. His vacation budget allows him to spend $250 for a car rental. If Avis Car Rental Co. charges $142 plus $0.18 per mile, how many miles can Mr. Roberts drive while on vacation?

A. 108 miles

B. 2177.778 miles

C. 600 miles

D. 19.4 miles