Date:_____

Lesson 10: Function Notation Guided Notes

I. **Relation**: _____

_____

Domain: All _____ values.

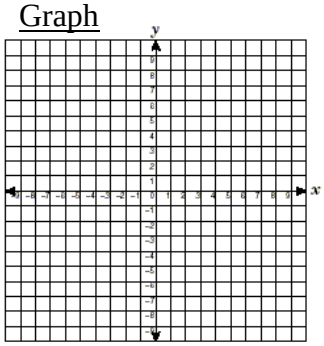
Range: All _____ values.

Express the relation as a table, a graph, and a mapping. Then determine the domain and range.

$\{(7,-5),(-4,-1),(6,8),(7,-1)\}$

Table

Graph



Mapping:

Domain: Range:

Function: A relation in which for each element of the domain is paired with

_____ element of the range.

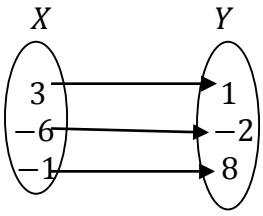
**

Vertical Line Test: _____

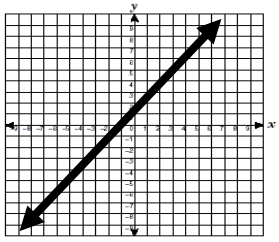
_____

Determine whether the following are functions. Explain your reasoning:

1.)



2.)



Function Notation:

If $f(x) = 4x - 5$ *and* $g(x) = x^2 + 1$ *, find the following:*

1. $f(2)$
2. $g(-1)$
3. $f(y - 4)$
4. $g(1) - 9$

Real World Function Notation

1. The equation $C(h) = -6h + 40$ models a student passing out cards for Christmas at the beginning of each class period. Let h = class period and C = number of cards left. The student passed out her first set of cards at the beginning of first hour. When will he have 16 cards left at the end of the hour?
2. Using the Christmas Card scenario from above, what does $C(3)$ represent?
3. Explain the domain of this problem.
4. Explain the range of this problem.