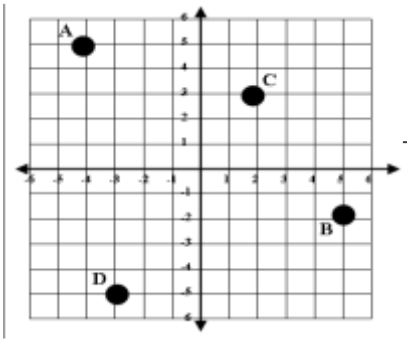
Math 1215 Hw11 **Name** ..... Solutions

1. Coordinate Plane Review



IDENTIFY THE GIVEN POINTS:	
A (-4, 5)	C (3, 3)
B (5, -2)	D (-3, -5)

Find the domain (x's) $= \{-4, -3, 3, 5\}$

Find the Range (y's) $= \{-5, -2, 3, 5\}$

2.Express the relation as a table. {(3,2), (-1,4),(0,-3),(-3,4), (-2,-2)} ,Is this relation represent a function? Find the domain and the range .

x	y
3	2
-1	4
0	-3
-3	4
-2	-2

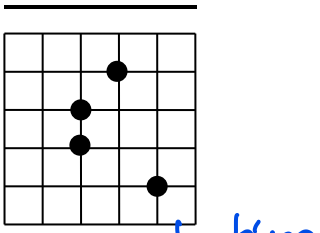
3.Ordered Pairs: State whether each set is a function. Answer yes or no. Find the domain and the range.

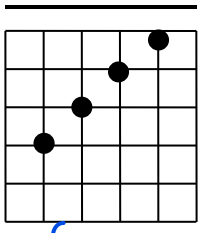
{(2, 5), (5, 6), (2, -6), (3, 8)} Not a function *Domain:* $\{2, 3, 5\}$ *Range:* $\{5, 6, -6, 8\}$

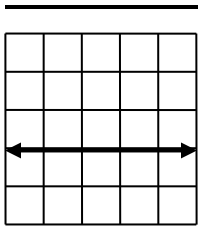
{(1, -2), (8, -4), (-3, 8), (-1, 2)} function *Domain:* $\{1, 8, -3, -1\}$ *Range:* $\{-2, -4, 8, 2\}$

{(1, 4), (1, 5), (1, 6), (1, 7)} Not function *Domain:* $\{1\}$ *Range:* $\{4, 5, 6, 7\}$

4.Use the vertical line test to determine whether each graph is the graph of a function. Answer yes or no.


Not function


function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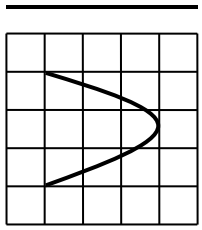
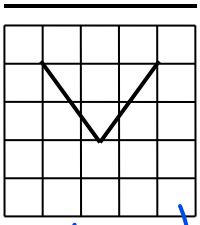
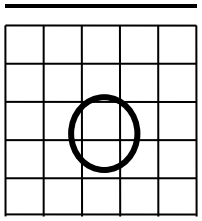

Not a function


function


Not function

5. *Function Notation: Use* $f(x)=x^2-3$ ***and*** $g(x)=4x-1$ ***to find each value.***

a) $f(-3)$

$= (-3)^2 - 3 = 9 - 3 = 6$

b) $g(-7)$

$= 4(-7) - 1 = -28 - 1 = -29$

c) $f(-5)+8$

$= (-5)^2 - 3 + 8 = 25 - 3 + 8 = 22 + 8$

$= 30$

d) $f(3c)$ $= (3c)^2 - 3 = 9c^2 - 3$

e) $g(w-7)$ $= 4(w-7) - 1 = 4w - 28 - 1 = 4w - 29$

6. *The function* $g(x)=160+1.5x$ ***models the weight gain of a basketball player as he starts a workout program where g is the weight after x weeks. Evaluate*** $g(6)$ ***and explain the meaning.***

$g(6) = 160 + 1.5 \cdot 6$

$= 160 + 9 = 169$ lbs

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