Name:_____ Date_____

Problem 1.

A parking lot charges $\$0.50$ for each half hour or fraction thereof, up to a daily maximum of $\$10.00$. Let $C(t)$ be the cost in dollars of parking for t minutes.

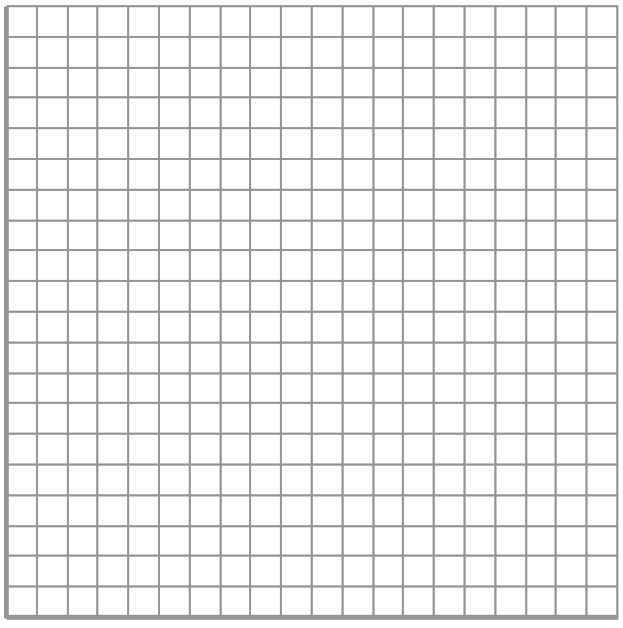
a. Complete the table below.

t **(minutes)**	$C(t)$ **(dollars)**
0	
15	
20	
35	
75	
125	

b. Sketch a graph of C for $0 \leq t \leq 480$.

c. Is C a function of t? Explain your reasoning.

d. Is t a function of C? Explain your reasoning.



Problem 2.

You put a yam in the oven. After 45 minutes, you take it out. Let f(t) be the temperature of the yam t minutes after you placed it in the oven.

In (a)–(d), explain the meaning of the statement in everyday language.

F(0)=65

f(5)<f(10)

f(40)=f(45)

f(45)>f(60)

Problem 3.

A certain business keeps a database of information about its customers.

a. Let C be the rule which assigns to each customer shown in the table his or her home phone number. Is C a function? Explain your reasoning.

Customer Name	Home Phone Number
Heather Baker	3105100091
Mike London	3105200256
Sue Green	3234132598
Bruce Swift	3234132598
Michelle Metz	2138061124

b. Let P be the rule which assigns to each phone number in the table above, the customer name(s) associated with it. Is P a function? Explain your reasoning.

c. Explain why a business would want to use a person's social security number as a way to identify a particular customer instead of their phone number.

Problem 4.

Find the Domain and Range for each set of ordered pairs.

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

Domain : _____

Range : _____

2) { (6, 2), (3, 5), (9, 0), (5, 7), (8, 1) }

Domain : _____

Range : _____

3) { (1, 9), (2, 7), (5, 4), (7, 12), (3, 9) }

Domain : _____

Range : _____

4) { (0, 2), (3, 3), (8, 7), (2, 2), (3, 9) }

Domain : _____

Range : _____

Problem 5.

Complete the function table:

1) $f(x) = 1 + 3x$

x	-5	-1	1	2	5
$f(x)$					

2) $f(x) = 3x - 8$

x	-3	-2	-1	0	1
$f(x)$					

7) $f(x) = -4 - x$

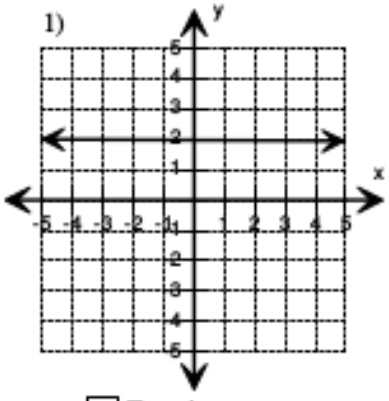
x	-4	-1	2	6	8
$f(x)$					

8) $f(x) = 8 - 5x$

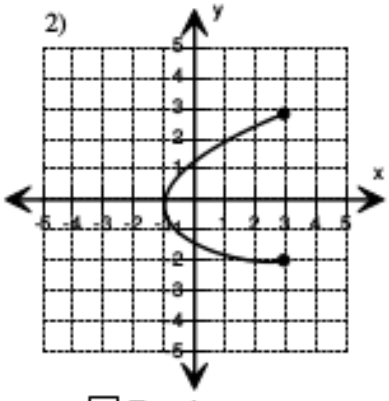
x	-6	-3	0	3	5
$f(x)$					

Problem 6.

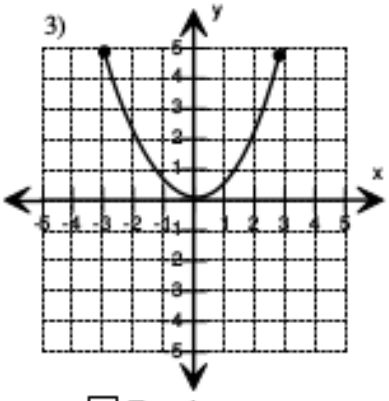
Choose the correct choice that describes the graph.

1) 

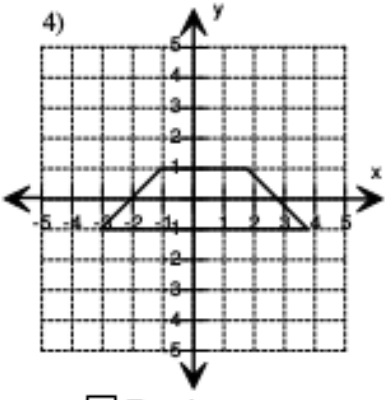
☐ Function
☐ Not a Function

2) 

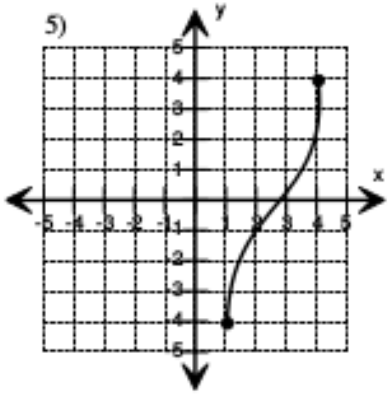
☐ Function
☐ Not a Function

3) 

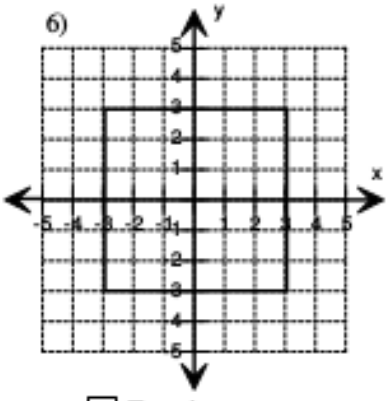
☐ Function
☐ Not a Function

4) 

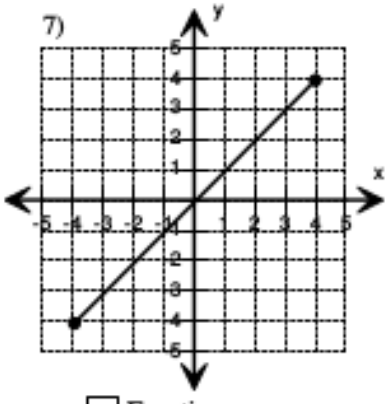
☐ Function
☐ Not a Function

5) 

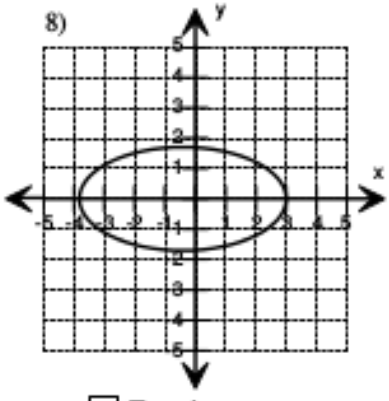
☐ Function
☐ Not a Function

6) 

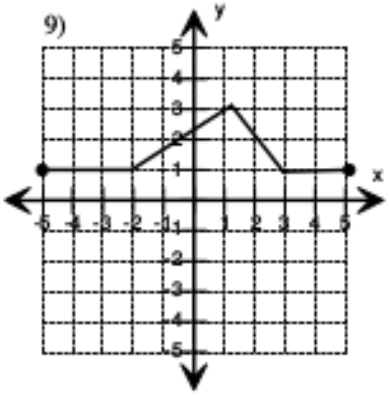
☐ Function
☐ Not a Function

7) 

☐ Function
☐ Not a Function

8) 

☐ Function
☐ Not a Function

9) 

☐ Function
☐ Not a Function