Math 141 Quiz 2 Preparation Ch.2.1 to 2.3 v01
SPRING 2015 Dressler NO BOOK/ NO NOTES/YES CALCUATOR

Name_____

Solve the problem.

1) Some values for a relation are given in the table. Is the relation a function? 1) _____

x	y
1	5
2	9
3	2
3	4
4	7

2) Some values for a relation are given in the table. Is the relation a function? 2) _____

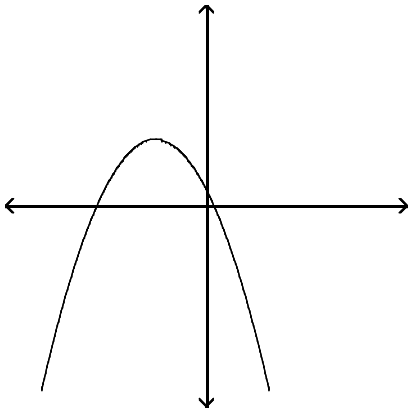
x	y
1	2
2	7
3	7
4	1
5	9

3) Some values for a relation are given in the table. Is the relation a function? 3) _____

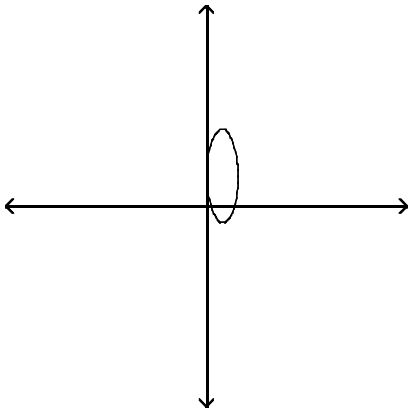
x	y
1	2
2	5
3	8
3	11
4	14

Determine whether the graph is the graph of a function.

4) 4) _____

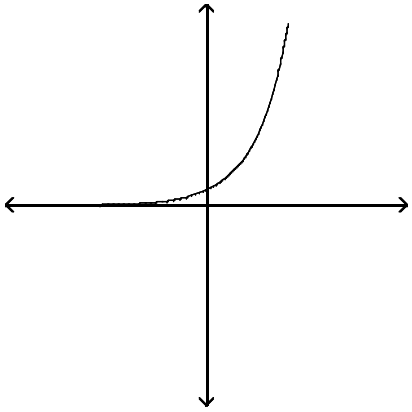


5)



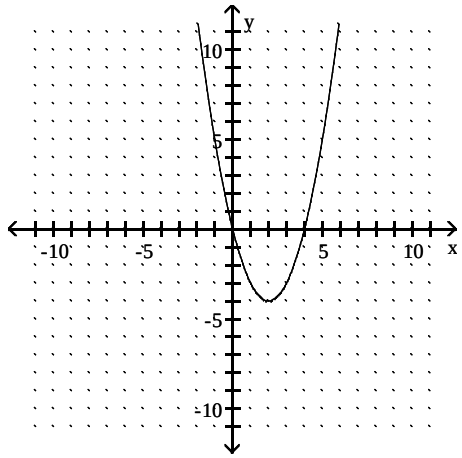
5) _____

6)

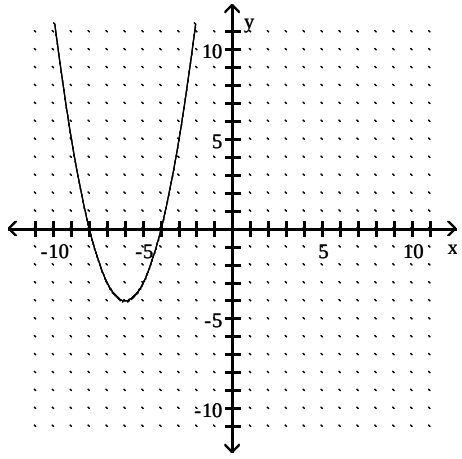


6) _____

Find the domain and the range of the relation.

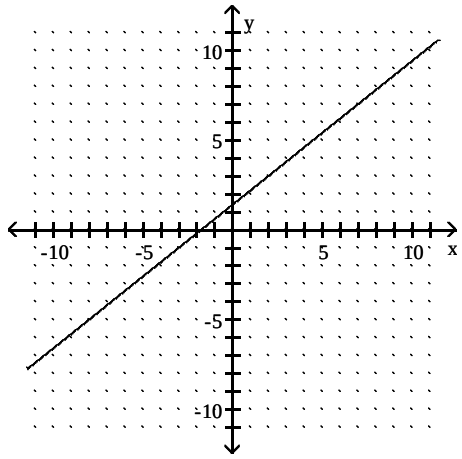
7) 

7) _____

8) 

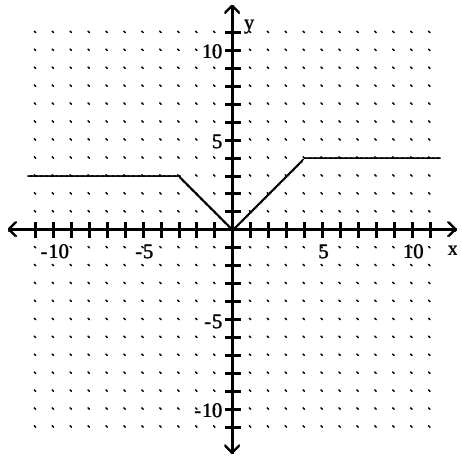
8) _____

9)



9) _____

10)



10) _____

Determine whether the relation is a function.

11) $y = 3x - 1$ 11) _____

12) $2x - 5y = 10$ 12) _____

13) $x = 3$ 13) _____

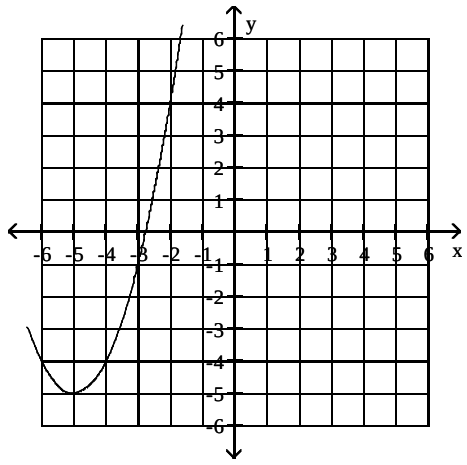
14) $y = x^2$ 14) _____

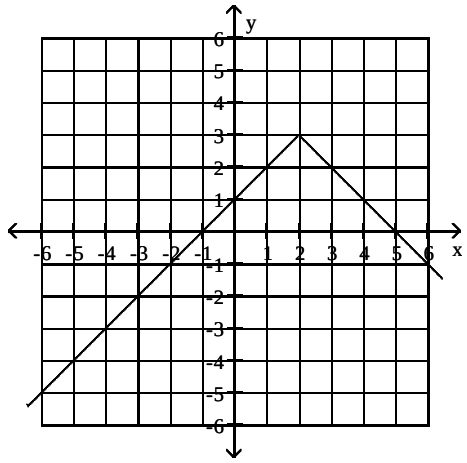
15) $x = y^4$ 15) _____

16) $5x + 7y - 2 = 7 + 7(y - 1)$ 16) _____

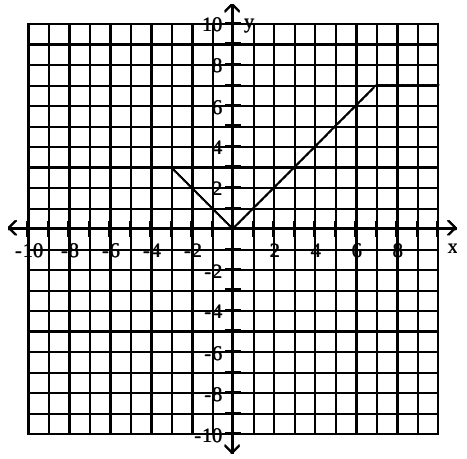
Use the graph to determine the function's domain and range.

17) 17) _____



18) 
y
x
6
5
4
3
2
1
-1
-2
-3
-4
-5
-6
-6 -5 -4 -3 -2 -1 1 2 3 4 5 6

18) _____

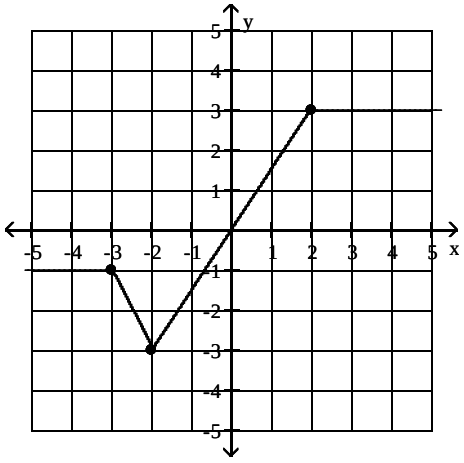
19) 
y
x
10
8
6
4
2
-2
-4
-6
-8
-10
-10 -8 -6 -4 -2 2 4 6 8

19) _____

Identify the intervals where the function is changing as requested.

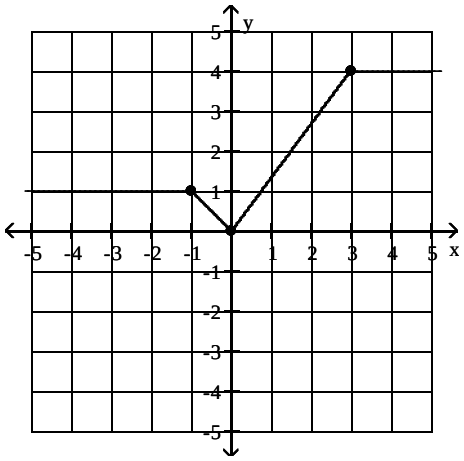
20) Increasing

20) _____



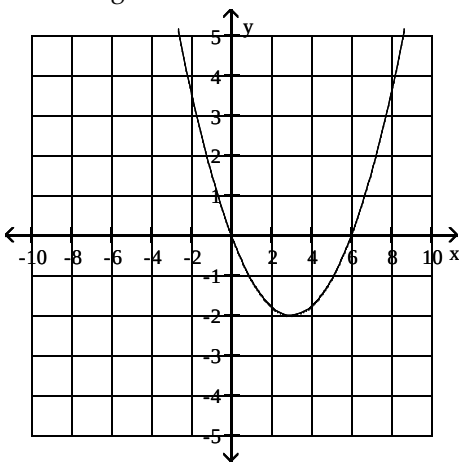
21) Constant

21) _____



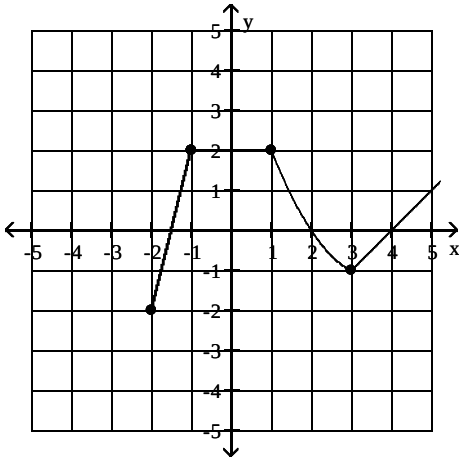
22) Increasing

22) _____



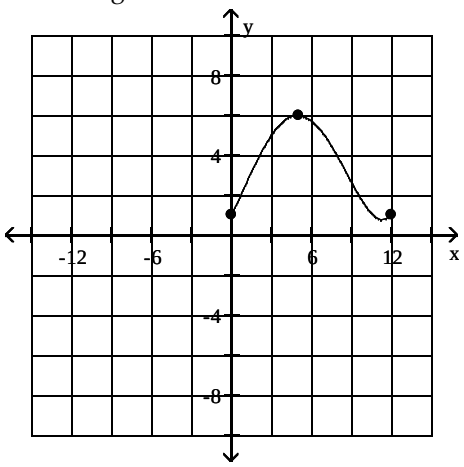
23) Increasing

23) _____



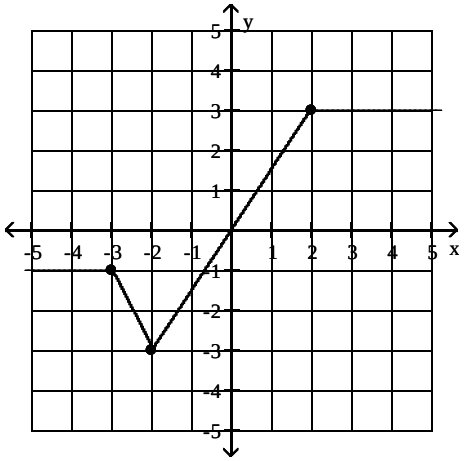
24) Increasing

24) _____



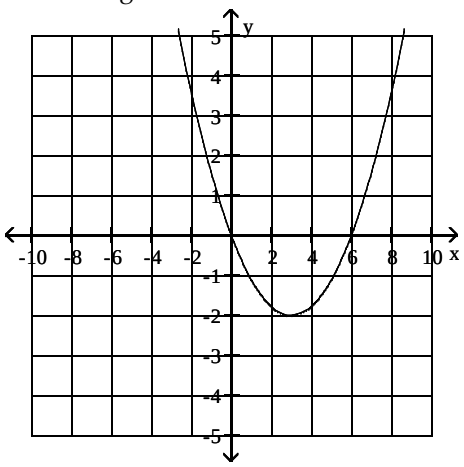
25) Decreasing

25) _____



26) Decreasing

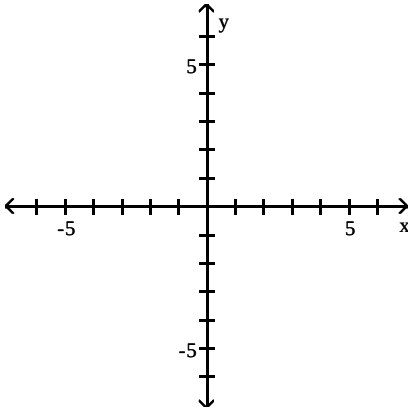
26) _____



Graph the function.

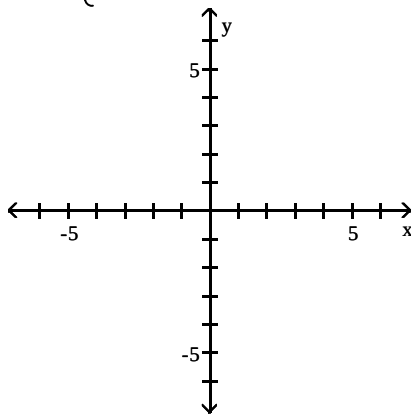
27) $f(x) = \begin{cases} x + 4 & \text{if } x < 1 \\ -2 & \text{if } x \geq 1 \end{cases}$

27) _____



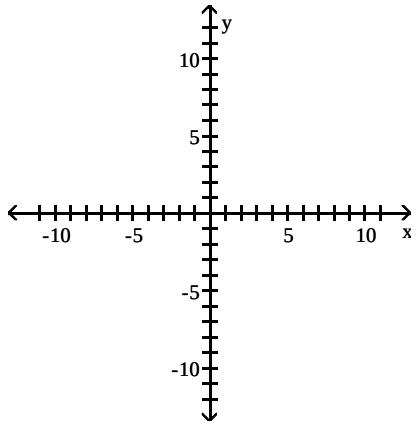
28) $f(x) = \begin{cases} -x + 3 & \text{if } x < 2 \\ 2x - 3 & \text{if } x \geq 2 \end{cases}$

28) _____

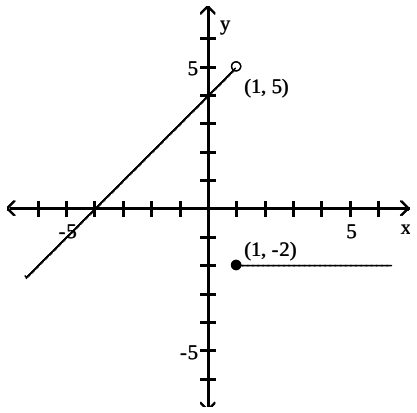


29) $f(x) = \begin{cases} x + 5 & \text{if } -8 \leq x < 2 \\ -4 & \text{if } x = 2 \\ -x + 5 & \text{if } x > 2 \end{cases}$

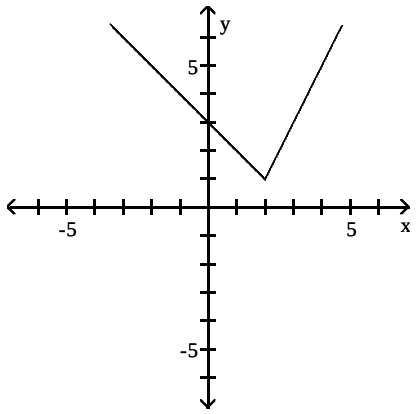
29) _____



1) No
2) Yes
3) No
4) function
5) not a function
6) function
7) domain: all real numbers; range: $y \geq -4$
8) domain: all real numbers; range: $y \geq -4$
9) domain: all real numbers; range: all real numbers
10) domain: all real numbers; range: $0 \leq y \leq 4$
11) function
12) function
13) not a function
14) function
15) not a function
16) not a function
17) domain: $(-\infty, \infty)$
    range: $[-5, \infty)$
18) domain: $(-\infty, \infty)$
    range: $(-\infty, 3]$
19) domain: $(-\infty, \infty)$
    range: $[0, 7]$
20) $(-2, 2)$
21) $(-\infty, -1)$ or $(3, \infty)$
22) $(3, \infty)$
23) $(-2, -1)$ or $(3, \infty)$
24) $(0, 5)$
25) $(-3, -2)$
26) $(-\infty, 3)$
27)



28)



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