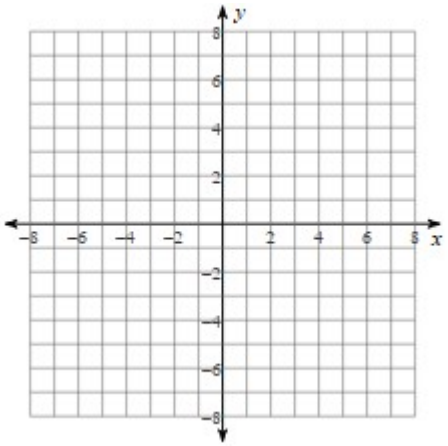
Module 3 Lesson 2 Assignment Name:_____

Graph each set of linear equations on the same set of axes. Name the coordinates of the point where the two lines intersect.

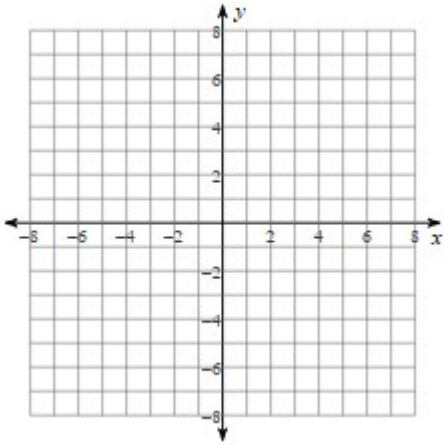
1) $\begin{cases} f(x) = 2x - 7 \\ g(x) = -4x + 5 \end{cases}$

Point of Intersection:



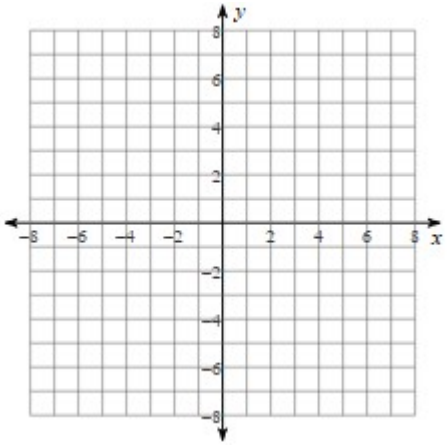
2) $\begin{cases} f(x) = -5x - 2 \\ g(x) = -2x + 1 \end{cases}$

Point of Intersection:



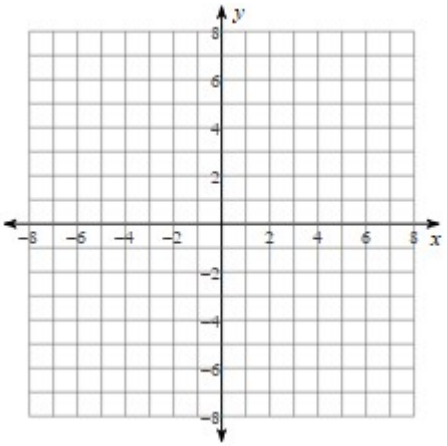
3) $\begin{cases} f(x) = -x - 2 \\ g(x) = 2x + 10 \end{cases}$

Point of Intersection:



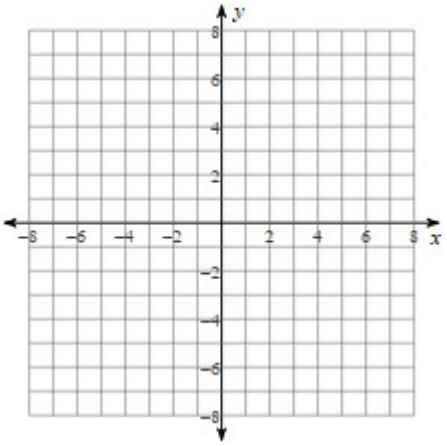
4) $\begin{cases} f(x) = x - 5 \\ g(x) = -x + 1 \end{cases}$

Point of Intersection:



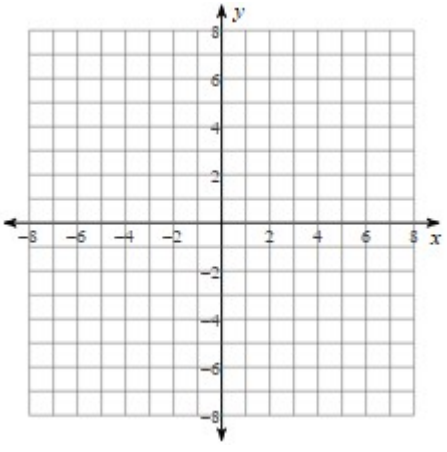
5) $\begin{cases} f(x) = \frac{2}{3}x + 4 \\ g(x) = -\frac{1}{3}x + 1 \end{cases}$

Point of Intersection:



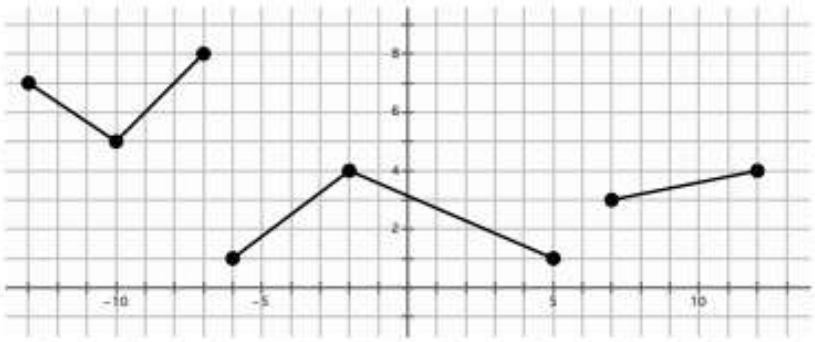
6) $\begin{cases} f(x) = x \\ g(x) = -x - 2 \end{cases}$

Point of Intersection:



For each graph state a) the interval(s) where it is increasing, decreasing, or constant, b) the minimum or maximum value (if it exists), c) identify the domain and range, d) intercepts, and e) determine whether the function is continuous, discrete or discontinuous. Use interval notation.

7)



a. Increasing:

   Decreasing:

   Constant:

b. Minimum:

   Maximum:

c. Domain:

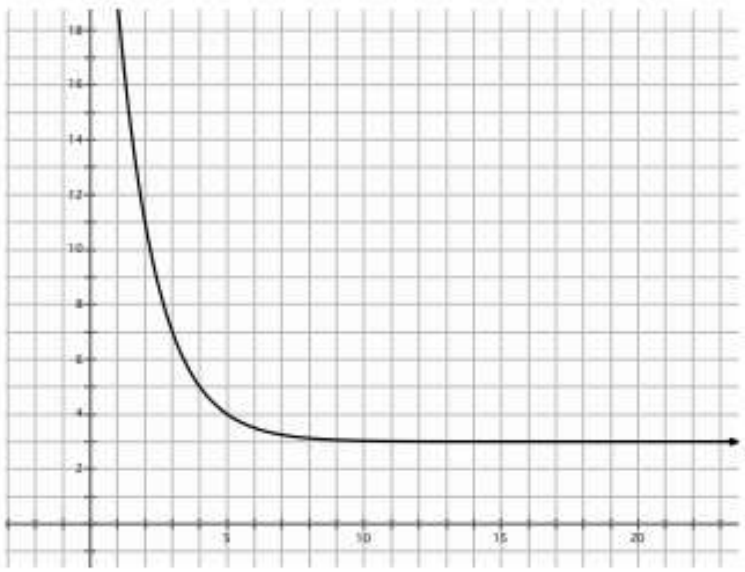
   Range:

d. x-intercept(s):

   y-intercept:

e. Circle one: Continuous Discrete Discontinuous

8)



a. Increasing:

   Decreasing:

   Constant:

b. Minimum:

   Maximum:

c. Domain:

   Range:

d. x-intercept(s):

   y-intercept:

e. Circle one: Continuous Discrete Discontinuous

Module 3 Lesson 2 Assignment Name:_____

9)

a. Increasing:

Decreasing:

Constant:

b. Minimum:

Maximum:

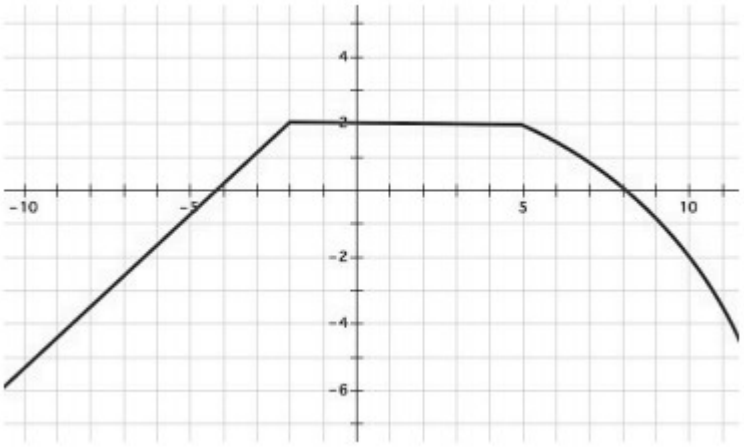
c. Domain:

Range:

d. x-intercept(s):

y-intercept:

e. Circle one: Continuous Discrete Discontinuous



Write equations for the given tables in both recursive and explicit form.

10) Explicit: Recursive:

n	$f(n)$
1	5
2	2
3	-1

11) Explicit: Recursive:

n	$f(n)$
1	6
2	12
3	24

12) Explicit: Recursive:

n	$f(n)$
0	-13
2	-5
3	-1

13) Explicit: Recursive:

n	$f(n)$
1	5
4	11
5	13

14) Explicit: Recursive:

n	$f(n)$
2	5
7	15,625
9	390,625

15) Explicit: Recursive:

n	$f(n)$
0	-4
1	-16
2	-64