Name: __Key__   Date: _____   Period: _____

3.6 Functions CYU

CONCEPTS	BASIC	INTERMEDIATE	ADVANCED
Domain & Range	1, 2		
Function or Not a Function	3, 4, 9	5 - 11	12
Reading a Graph	17 - 21		
Evaluating Functions	13, 15	14	16
Function Notation to Coordinate Form	22 - 27		

Find the domain and range of each relation. Be sure to label your answers.
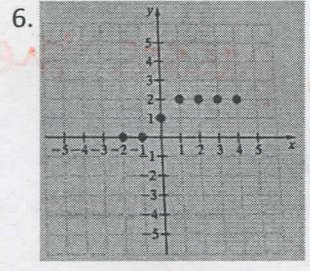
1. {(2, 4), (0, 0), (- 7, 10), (10, - 7)}

D: $\{-7, 0, 2, 10\}$
R: $\{-7, 0, 4, 10\}$

2. {(3, - 6), (1, 4), (- 2, - 2)}

D: $\{-2, 1, 3\}$
R: $\{-6, -2, 4\}$

Determine whether each relation is also a function. Why or why not?

3. {(1, 1), (2, 2), (- 3, - 3), (0, 0)}

yes, x doesn't repeat

4. {(- 1, 0), (- 1, - 2), (0, 0), (3, - 2)}

no, x → 0 & -2

5.

no

6.

yes

7.

no

8.
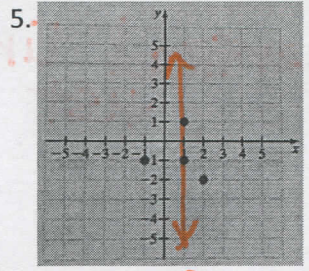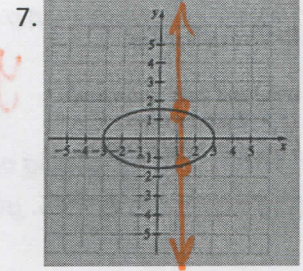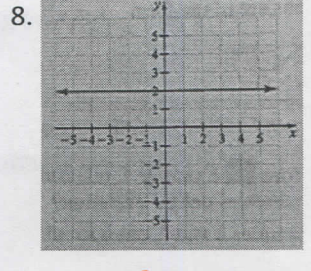
yes

9. y = x + 1

yes

10. y = 6

yes

11. x = - 2

no

12. x = y²

no

Find f(- 2), f(0), and f(3) for each function. Show work for full credit.

13. f(x) = 2x − 5

f(-2) = -9
f(0) = -5
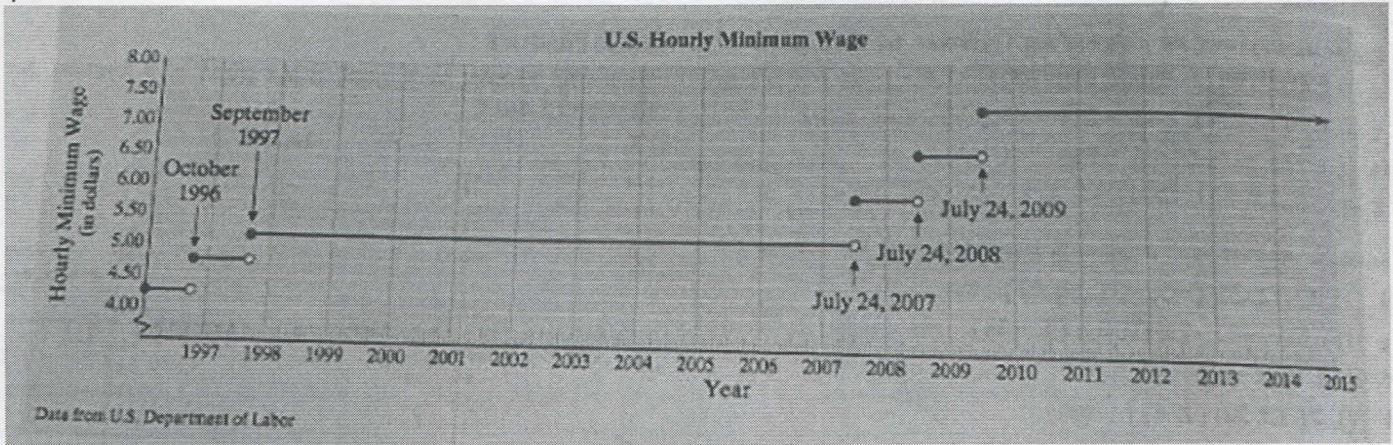f(3) = 1

14. f(x) = x² + 2

f(-2) = 6
f(0) = 2
f(3) = 11

15. f(x) = 3x

f(-2) = -6
f(0) = 0
f(3) = 9

16. f(x) = |2 − x|

f(-2) = 4
f(0) = 2
f(3) = 1

17 – 21: The graph shows the I.S. hourly minimum wage for each year shown. Use this graph to answer the following questions.

U.S. Hourly Minimum Wage

Data from U.S. Department of Labor

17. Approximate the minimum wage before October 1, 1996.   **$4.25 per hour**

18. Approximate the minimum wage in 2006.   **$5.15 per hour**

19. Approximate the year when the minimum wage increased to over $7.00 per hour.   **2009**

20. According to the graph, what hourly wage was in effect for the greatest number of years?   **$5.15**

21. Is this graph the graph of a function? Why or Why not?   **yes, passes the vertical line test**

For each given function value, write a corresponding ordered pair.
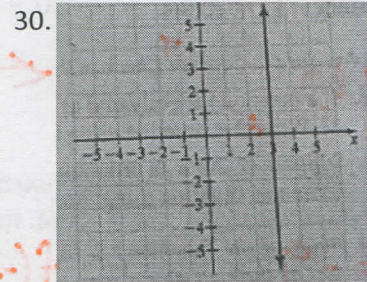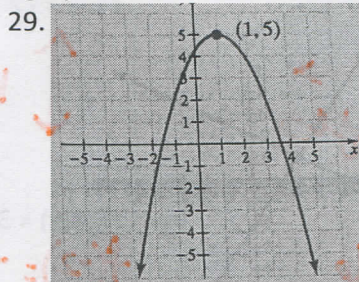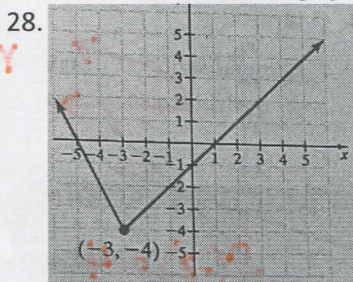
22. f(3) = 6   24. f(7) = - 2   25. $g(0) = -\frac{1}{2}$ 26. $g(0) = -\frac{7}{8}$ 27. h(- 10) = 1

Find the domain and range for each relation graphed.

28.

(-3, -4)

29.

(1, 5)

30.

CYU Reflection: *How far can you go: basic, intermediate, or advanced?*
Rate your mastery level!
How confident are you with the skills this CYU covered? Circle the score you would give yourself.

1	2	3	4	5	6	7	8
Basic		Intermediate			Advanced		Solved ALL!