

### Chapter 3 Test Review CYU

Use when you get it right all by yourself

**S** Use when you did it all by yourself, but made a silly mistake

**H** Use when you could do it alone with a little help from teacher or peer

**G** Use when you completed the problem in a group

**X** Use when a question was attempted but wrong (get help)

**N** Use when a question was not even attempted

CONCEPTS	BASIC	INTERMEDIATE	ADVANCED
Vocabulary	1 - 11	$(\frac{5}{8} - 1) : \frac{5}{8}$	
Graphing	12, 14	13	
Determining slope & its meaning	15	16, 18	17, 34
Parallel & Perpendicular lines		19	
Standard form, $Ax + By = C$		20, 23	21, 22
Evaluating Functions/Predicting	24		37
Function Notation into Coordinate Form	27, 28	24	35
Domain & Range	26	25	
Reading Graphs	29 - 33		
Slope-Intercept Form		36	

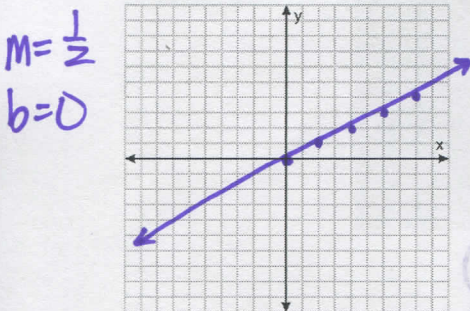
Match the vocab word to the appropriate description.

- |                |             |                    |
|----------------|-------------|--------------------|
| A. relation    | G. domain   | M. standard        |
| B. y-axis      | H. range    | N. slope           |
| C. x-axis      | I. solution | O. slope-intercept |
| D. x-intercept | J. y        | P. point-slope     |
| E. function    | K. x        |                    |
| F. y-intercept | L. linear   |                    |

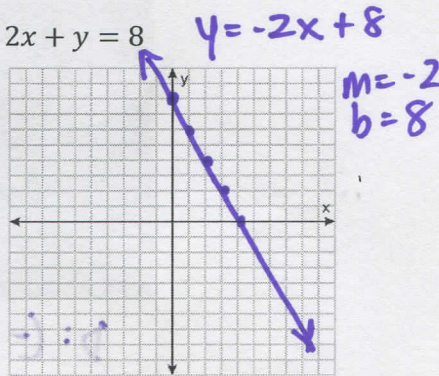
- An ordered pair is a(n) I of an equation in two variables if replacing the variables by the coordinates of the ordered pair results in a true statement.
- The vertical number line in the rectangular coordinate system is called the B.
- A(n) L equation can be written in the form  $Ax + By = C$ .
- A(n) D is a point of the graph where the graph crosses the x-axis.
- The form  $Ax + By = C$  is called M form.
- The equation  $y = 7x - 5$  is written in O form.
- The equation  $y + 1 = 7(x + 2)$  is written in P form.
- To find the x-intercept of a graph, let J = 0.
- The N of a line measures the steepness or tilt of a line.
- A set of ordered pairs that assigns to each x-value exactly one y-value is called a(n) E.
- The set of all y-coordinates of a relation is called the H of the relation.

Graph the following.

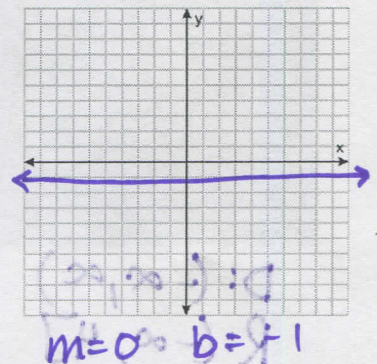
12.  $y = \frac{1}{2}x$



13.  $2x + y = 8$

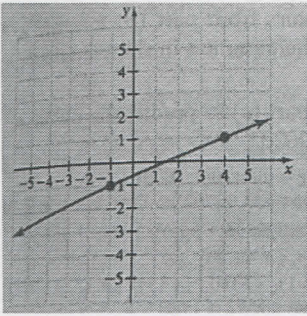


14.  $y = -1$



Find the slopes using the formula. Show work to earn full credit.

15.



$$m = \frac{2}{5}$$

16. Through (6, -5) & (-1, 2)

$$m = -1$$

17.  $x = 6$

undefined

18. Determine the slope and the y-intercept of the graph of  $7x - 3y = 2$ .

$$m = \frac{7}{3} : (0, -\frac{2}{3})$$

19. Determine whether the graphs of  $y = 2x - 6$  and  $-4x = 2y$  are parallel lines, perpendicular lines, or neither.

neither

Find equations of the following lines. Write the equation in standard form.

20. With slope of  $-\frac{1}{4}$  through (2, 2)

$$x + 4y = 10$$

21. Through the origin and (6, -7)

$$7x + 6y = 0$$

22. Through (2, -5) and (1, 3)

$$8x + y = 11$$

23. Through (-5, -1) and parallel to  $x = 7$

$$x = -5$$

Given the following function, find the indicated function values. Then write your answer in coordinate form.

24.  $h(x) = x^3 - x$

a)  $h(-1) = 0$

$$(-1, 0)$$

b)  $h(0) = 0$

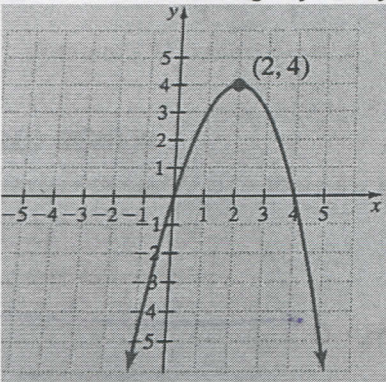
$$(0, 0)$$

c)  $h(4) = 60$

$$(4, 60)$$

Find the domain and range of each function in interval notation.

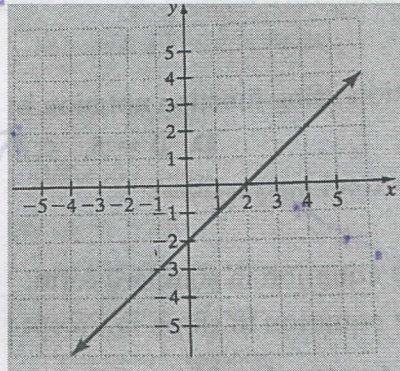
25.



$$D: (-\infty, \infty)$$

$$R: (-\infty, 4]$$

26.



$$D: (-\infty, \infty)$$

$$R: (-\infty, \infty)$$

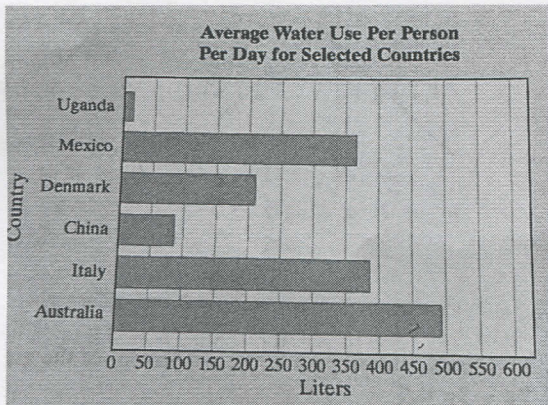
Write the function notation as a corresponding ordered pair.

27.  $f(7) = 20$

$(7, 20)$

28.  $f(-3) = 0$

$(-3, 0)$



29. Estimate the average water use per person per day in Denmark.

210 liters

30. Estimate the average water use per person per day in Australia.

490 liters

31. During what month is the average high temperature the greatest?

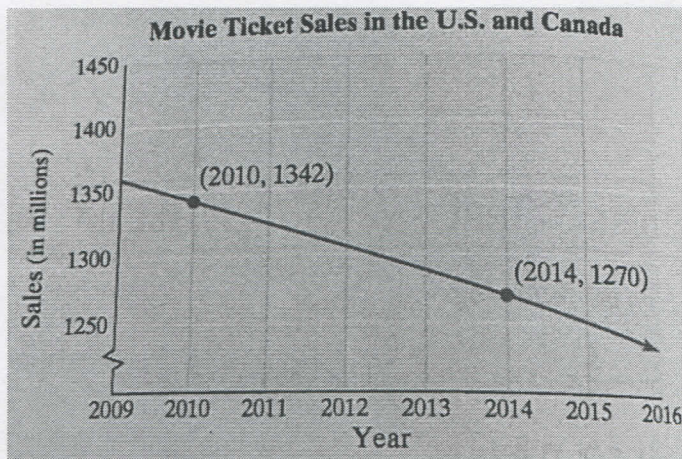
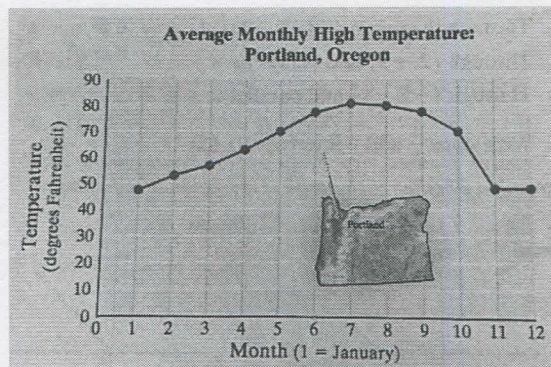
July

32. Approximate the average high temperature for the month of April.

63° F

33. During what month(s) is the average high temperature below 60° F?

Jan., Feb., Mar., Nov., Dec.



This graph approximates the number of movie ticket sales  $y$  (in millions) for the year  $x$ .

34. Find the slope of the line. Then write a sentence explaining the meaning of the slope as a rate of change. Don't forget to attach the proper units.

$m = -18$ : For every 1 yr. 18 million fewer tickets are sold.

35. Write two ordered pairs of the form (years past 2000, number of tickets sold in millions.)

$(10, 1342) \text{ \& } (14, 1270)$

36. Use the two ordered pairs from number 35 to write a linear equation. Write the equation in slope-intercept form.

$y = -18x + 1522$

37. Use the equation from number 36 to predict the number of movie tickets sold in 2020.

In 2020, we predict that 1162 million movie tickets will be sold in the U.S. & Canada.

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.

