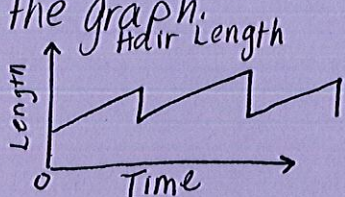


Name: _____

Week of: _____

ALGEBRA SPIRAL REVIEW

Label each section of the graph.



Sketch a graph for your walking speed during five minutes between class.

Write a function rule for the table.

x	f(x)
-3	-5
0	1
2	5
3	7

Find the slope.

- $(-8, 0)(1, 5)$
- $(0, 0)(3, 5)$
- $(4, 1\frac{2}{3})(-2, \frac{2}{3})$

Write an equation of a line that is parallel.

- $y = -\frac{7}{2}x + 6; (-4, -6)$
- $y = 0.5x - 8; (8, -5)$

Write an equation of a line that is perpendicular.

- $3x + 5y = 7; (-1, 2)$
- $-10x + 8y = 3; (15, 12)$

Solve the system by elimination.

$$\begin{array}{r} 2x - 3y = 6 \\ 2x + y = -7 \\ \hline 7x + 15y = 32 \\ x - 3y = 20 \\ \hline 4x + 5y = 15 \\ 6x - 4y = 11 \end{array}$$

$$\begin{array}{r} 20x + 3y = 20 \\ -20x + 5y = 60 \\ \hline x - 8y = 18 \\ -16x + 16y = -8 \\ \hline 3x - 2y = 10 \\ 2x + 3y = -2 \end{array}$$

Use a mapping diagram to determine if the relation is a function.

$[(0.04, 0.2)(0.2, 1)(1, 5)(5, 25)]$

Use a vertical line test to determine if the relation is a function.

$[(-2, 9)(3, 9)(-0.5, 9)(4, 9)]$

Write an equation in slope-intercept form.

$m = -1, b = -6$

$m = -\frac{2}{3}, b = 5$

$2y - 6 = 3x$

$y = (2-a)x + a$

Graph each equation.

$y = 7 - 3x$

$2y + 4x = 0$

$2(3x - 4) + y = 0$
 $y + 2 = 5x - 4$

Model each rule with a table.

$y = 11x - 1$ $f(x) = x^2$

Find the range of the function rule $y = 5x - 2$

$[(-5, -1), (0, 2), (10, 48)]$

$[-\frac{1}{2}, \frac{1}{4}, \frac{2}{5}]$

Write each equation in standard form.

$y = -\frac{3}{4}x - 4$

$y = -3x$

$y = \frac{7}{2}x + 4$

Graph each equation using x and y intercepts.

$x + y = -5$ $5x - 3y = 15$

Write an equation in point-slope form.

$(-1, -5)(-7, -6)$ $(-3, -4)(3, -2)$

Use a graphing calculator to find the equation of a line of best fit.

Fat	6	7	10	19	20	27	36
Cal.	276	260	220	388	430	550	633

Solve the equations by graphing.

$y = 1$ $y = x + 4$ $y = -\frac{1}{3}x + 1$
 $y = x$ $y = 4x + 1$ $y = \frac{1}{3}x - 3$

Solve the system using substitution.

$C(n) = -3n - 6$ $h = 6g - 4$
 $C(n) = n - 4$ $h = -2g + 28$

$y = x + 2$ $C = 3d - 27$
 $2x + 2y = 4$ $4d + 10c = 120$

You have \$22 in your bank account and deposit \$11.50 each week. At the same time your cousin has \$218 but is withdrawing \$13 each week.

a. When will your accounts have the same balance?

b. How much money will each of you have after 12 weeks?

Several students decide to start a T-shirt company. After initial expenses of \$280, they purchase each T-shirt wholesale for \$3.99. They sell each T-shirt for \$10.99. How many must they sell to break even?