

ALGEBRA 1

Name KEY

1-9 PRACTICE: PATTERNS, EQUATIONS, and GRAPHS

Determine whether the ordered pair is a solution to the given equation.

1. $y = 1 - x$; $(2, 1)$

$1 \stackrel{?}{=} 1 - 2$

$1 \neq -1$

Not a soln.

3. $\frac{x}{5} = y$; $(-10, -2)$

$\frac{-10}{5} \stackrel{?}{=} -2$

$-2 = -2$

Yes, a soln

2. $y = -4x$; $(-2, 8)$

$8 \stackrel{?}{=} -4(-2)$

$8 = 8$

Yes, a soln.

4. $y = x - \frac{3}{4}$; $(2, \frac{5}{4})$

$\frac{5}{4} \stackrel{?}{=} 2 - \frac{3}{4}$

$\frac{5}{4} \stackrel{?}{=} \frac{8}{4} - \frac{3}{4}$

$\frac{5}{4} = \frac{5}{4}$

Yes, a soln.

Use the table to draw a graph and answer the given question.

5. The table shows the height in inches of stacks of tires.

a. Draw a graph, be sure to label and title the axes.

Number of Tires (x)	Height of Stack (y)
1	8
2	16
3	24
4	32
7	56

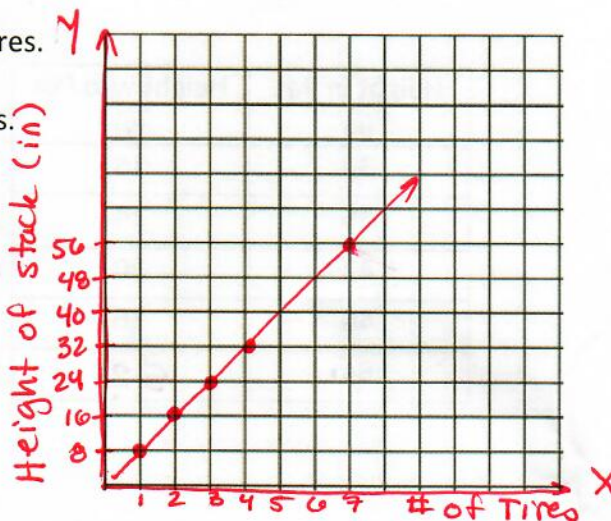
$1(8)$

$2(8)$

$3(8)$

$4(8)$

$7(8)$

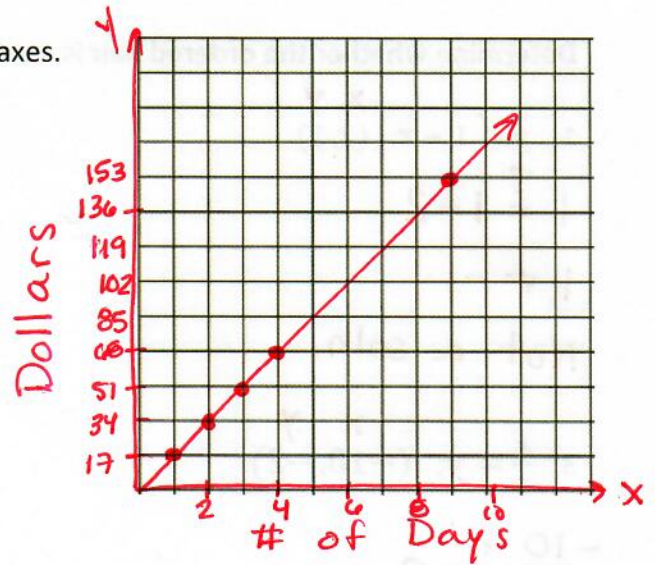
b. Using the pattern, what is the height of a stack of 7 tires? $7(8) = 56$ c. Write an equation to represent the situation. $y = 8x$

6. The table shows the amounts earned for pet sitting.

a. Draw a graph, be sure to label and title the axes.

Days (x)	Dollars (y)
1	17
2	34
3	51
4	68
9	153

1(17)
2(17)
3(17)
4(17)
9(17)



b. Using the pattern, how much is earned for a 9-day job? 9(17) = 153

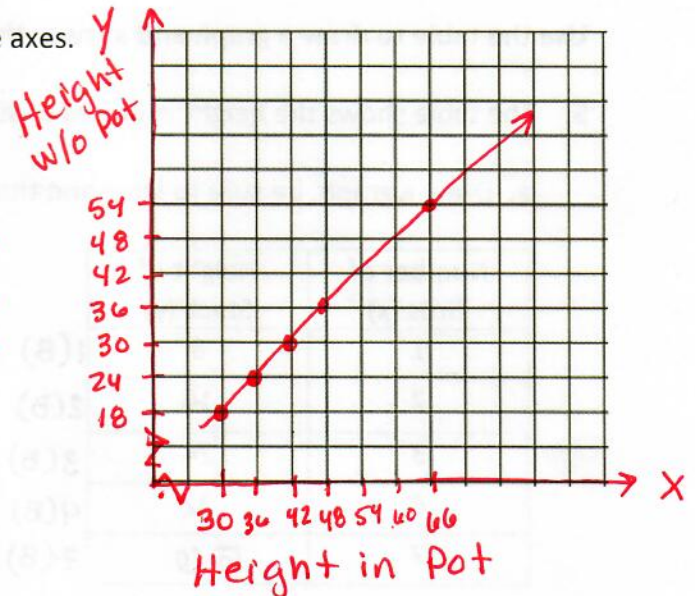
c. Write an equation to represent the situation. y = 17x

7. The table shows the heights in inches of trees after they have been planted.

a. Draw a graph, be sure to label and title the axes.

Height in Pot (x)	Height w/o Pot (y)
30	18
36	24
42	30
48	36
66	54

30-12
36-12
42-12
48-12
66-12



b. Using the pattern, what is the height of a tree that is 64 inches tall in its pot? 66-12 = 54 in

c. Write an equation to represent the situation. y = x - 12