

Name: _____ Date: _____ Class: _____

GRADE: _____

Unit 3: Functions and Relations

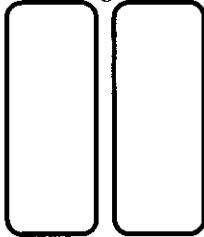
Number of Problems Missed	1	2	3	4	5	6	7	8
Homework Score	88	75	63	50	38	25	13	0

1 Relation: $\{(7,-2), (8,-2), (-5,7), (-9,1)\}$
 Complete the following:

Table of Values:

X	Y

Mapping:



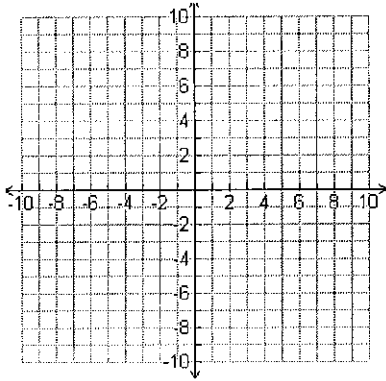
Domain:

{ _____ }

Range:

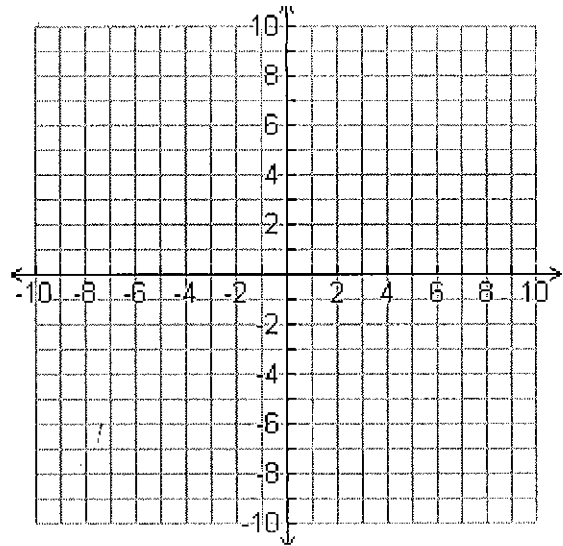
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Graph:



2 Graph the relation shown. Is the relation a function? Explain.

$\{(-8,0), (10, 6), (10, -2), (-5,7)\}$



3 Solve:

$$-2x - 2(-7x + 7) = 82$$

4 a.) Approximate $\sqrt{13}$ to the nearest tenth.

b.) Plot it on a number line.



c.) Between what two integers does $\sqrt{13}$ lie?

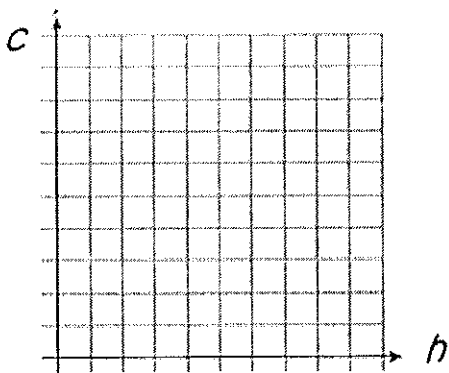
5 a) Write the fraction $-4\frac{7}{9}$ as a decimal.

b) Classify this as a terminating or repeating decimal.

c) Is $-4\frac{7}{9}$ a rational or irrational number? Explain how you know?

7 Elaine is in the business of repairing home computers. She charges a base fee of \$45 for each visit and \$25 per hour for her work. The total cost (c) for a home visit and (h) hours of work is modeled by the function rule $c = 45 + 25h$. Use the function rule to make a table of values and a graph.

Input	Rule	Output	Ordered Pair
h	$c = 45 + 25h$	c	(h, c)



6 Simplify:

a)
$$\frac{3^2 \cdot 3^5 \cdot 4^{-1}}{4^{-2} \cdot 3^{-3}}$$

b) $(4a^{-2})^3 (2ab)^2$

8 What is the slope and y-intercept?

a) $3x - 4y = 12$

$m =$

$b =$

b) $6x - y + 3 = 0$

$m =$

$b =$