Algebra Plus
Chapter 2 Study Guide

Mathematician: $\qquad$ Pd: $\qquad$
MUST SHOW WORK!!! This is a Rough Grade Breakdown

$1^{\text {st }}$ Target: Graphing Equations of Lines
a. Graph

$$
y=2 x-3
$$

b. Graph

$$
y=-3 x+4
$$



c. Graph
$y=\frac{2}{3} x-5$

d. Graph

$$
y=-\frac{3}{2} x+4
$$

$$
\begin{aligned}
& \text { e. Graph } \\
& y=-3
\end{aligned}
$$


f. Graph
$x=2$


## $\underline{2^{\text {nd }} \text { Target: Finding Slope }}$

a. Find the slope between $(2,1)$ and $(6,13)$
c. For $A(-1,4)$ and $B(2,5)$, find the slope of the line that is parallel to $\overleftrightarrow{A B}$.
A. $\frac{1}{3}$
B. -3
C. $\frac{3}{2}$
D. $-\frac{2}{3}$
E. None of these
d. For $(-5,4)$ and $(3,6)$, find the slope of the line that is parallel to $\overleftrightarrow{A B}$.
a. Identify the domain and range. Then, determine if each relation is a function. (2 pts)
a.) $\{(1,6),(-2,7),(5,6),(-4,8)\}$
b. Identify the domain and range. Then, determine if each relation is a function. (2 pts)

d. Determine if the following is a function: (1pt)


## $4^{\text {th }}$ Target: Writing Equations of Lines

a. Using Slope-Intercept, write the equation of the line if the slope is 2 and passes through the point $(3,10)$.
b. Using Slope-Intercept, write the equation of the line if the slope is $-\frac{1}{2}$ and passes through the point (4, -3 )
c. Write the equation of the line that passes through the point $(-2,2)$ and $(4,14)$.
d. Write the equation of the line that passes through the point $(9,-5)$ and $(5,3)$.

## $5^{\text {th }}$ Target: Scatter Plots and Solutions

a. Which graph represents a negative correlation?
A)


C)

D)

b. Estimate the r values for the following scatterplots
(3 pts)


$$
r \approx
$$



e. What is the solution for the following lines?

$$
y=4 x+9
$$

$$
y=7 x-4
$$

