## 1B Slippery Slopes

Name Per: $\qquad$
NO WORK, NO CREDIT. PENCIL ONLY.
Objective: Compare slopes from a combination of equations, graphs and/or tables. Due: Aug $28^{\text {th }} /$ Aug $29^{\text {th }}$
Find slope for the following lines:

4. Find the slopes for the following tables, points and graphs. For the graphs, also find the intercepts.
a

| X | Y |
| :---: | :---: |
| -3 | -2 |
| 2 | -12 |
| -10 | 12 |

Slope: $\qquad$
b.

| $X$ | $Y$ |
| :---: | :---: |
| -5 | 4 |
| 1 | 22 |
| 4 | 31 |

Slope: $\qquad$
c.


Slope: $\qquad$
$y$-intercept: $\qquad$
x-intercept: $\qquad$
EC. Equation: $\qquad$
d.


Slope: $\qquad$
$y$-intercept: $\qquad$
x-intercept: $\qquad$
EC. Equation: $\qquad$
e. $(3,-7)$ and $(-2,6)$
f. $(1,3)$ and $(-5,-9)$

Solve the following equations for " y " and list the slopes.
5. $9 y=3 x+1$
6. $20 x+5 y-7=-2$
7. $2 x+3 y+2 x=8$
a. Solve: $\qquad$ a. Solve:
a. Solve:
b. Slope: $\qquad$ b. Slope: $\qquad$ b. Slope:
$\qquad$
$\qquad$
8. The Daley family decides to buy a LED screen HDTV that costs a TOTAL DEBT of $\$ 460$. Mrs. Daley decided that they will pay $\$ 60$ a week.
a. Fill in the table to show the money owed each week.
b. How can you tell from a table if the slope is positive or negative?

|  | Pattern | Debt $(\boldsymbol{D})$ |  |
| :--- | :--- | :---: | :---: |
|  |  | $\mathbf{4 6 0}$ |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
| $\mathbf{w}$ |  |  |  |

c. What is the slope (rate of change) of the story?
d. Write an equation that represents the relationship between the amount the Mrs. Daley family still owes and the number of weeks after the purchase.
e. Mr. Daley, realizes that they have extra funds, and pays $\$ 100$ down and decides to pay $\$ 40$ a week. Make another table to reflect the new payment plan.
f. What is the slope (rate of change) of the story? $\qquad$
g. Write an equation that represents the new relationship between the amount Mr. Daley will now owe.

| \# of <br> weeks | Pattern |  |  |
| :---: | :--- | :--- | :--- |
| 0 |  | $\mathbf{3 6 0}$ |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
| $\mathbf{w}$ |  |  |  |

h. List at least two ways that the equations changed? $\qquad$
i. Which plan do you think will be paid off first? $\qquad$
j. Label the axes and graph the two different payment plans.
k. How can you tell from a graph is the slope is positive or negative?

1. Analyze your graph, who's plan will be paid off first?
E.C. List the $x$ - and $y$-intercepts for Mrs. Daley's plan. y-intercept ( $0, \quad$ ) and $x$-intercept $(\quad, 0)$
E.C. List the $x$ - and $y$-intercepts for Mrs. Daley's plan.
 y -intercept ( $0, \quad$ ) and x -intercept $(\quad, 0)$
