## Do Now

Identify if the following graphs are functions
1)


Not a function

## What is the slope of a line?

Slope - The steepness of a line
-The greater the slope, the steeper the line

What does a positive slope look like?


What does a negative slope look like?



To get from the point $(-2,-1)$ to $(4,3)$ :

You Rise up 4 and Run over 6


Slope $=\frac{\text { rise }}{\text { run }}=\frac{4}{6}=\frac{2}{3}$

Find the slope between
point $A$ and $B$

point $B$ and $C$

$$
\frac{\text { Rise }^{2}}{\text { Run }}=\frac{-4}{2}=-2
$$



What do we notice abut their slopes? Same, Slopes always the same on a line

Find the slopes between points $D$ and $E$ and points $F$ and $G$

$$
\begin{aligned}
& D E=\frac{1}{2}= \\
& F G=\frac{2}{4}=\frac{1}{2}
\end{aligned}
$$



Graph the following points and find the slope of the line they create.
$(-4,3)$ and $(0,0)$

$$
\text { Slope }=\frac{-3}{4}
$$

$(2,2)$ and $(6,-3)$

$$
\text { Slope }=\frac{-5}{4}
$$


A. Find the $x$ and $y$ intercepts
B. Plot the points on the Graph
$C$. Find the slope of the line

$$
\begin{aligned}
& 3 x+9 y=-18 \\
& x-\operatorname{int}(y=0) \mid y-\operatorname{int}(x=0) \\
& 3 x+9(0)=-18 \quad 3(0)+9 y=-18 \\
& \frac{3 x}{3}=-\frac{18}{3} \\
& x=-6 \\
& (-6,0) \quad(0,-2) \\
& \frac{R_{i s e}}{R_{\text {un }}}=\frac{-2}{6}=\frac{-1}{3}
\end{aligned}
$$



