Definition/Property

### 1.1 Review of Lines

## Objectives:

- I can define and find slope
- I can write the equation of a line
- I can can graph and write a piecewise function


## Slope

Lines that never intersect in the same plane
Perpendicular Lines

Find the slope of the following
$(4,-3)$ and $(2,5)$

| $x$ | -8 | -4 | 0 | 4 |
| :--- | :--- | :--- | :--- | :--- |
| $f(x)$ | 13 | 10 | 7 | 4 |

Name
Definition/Property

## Vertical Line

## $y=k$

Given the table find the slope

| $x$ | $f(x)$ |
| :---: | :--- |
| -1 | $14 / 3$ |
| 1 | $-4 / 3$ |
| 2 | $-13 / 3$ |

Write the equation of the line given $f(2)=3$ and $m=-3 / 2$

Write the equation of the line given $f(-2)=-1$ and $f(3)=4$
-

## Slope intercept form

Pend

Find the slope and x-intercept given $8 x+5 y=20$

State the parallel and perpendicular slope of the following
$\mathrm{m}=2$
$m=3 / 4$

Find an equation for the line through $f(-1)=2$ and
a) // to $y=3(x+5)-7$
b) $\perp$ to $y=3(x+5)-7$

Graph the following piecewise function

$$
f(x)=\left\{\begin{array}{l}
x+3, x<0 \\
x^{2}, 0 \leq x<2 \\
4 x, x \geq 2
\end{array}\right.
$$



State the domain and range

Graph the following piecewise function

$$
f(x)=\left\{\begin{array}{l}
4-x^{2}, x<1 \\
\frac{3}{2} x+\frac{3}{2}, 1 \leq x \leq 3 \\
x+3, x>3
\end{array}\right.
$$



[^0]Write a piecewise function for the following graph



[^0]:    State the domain and range

