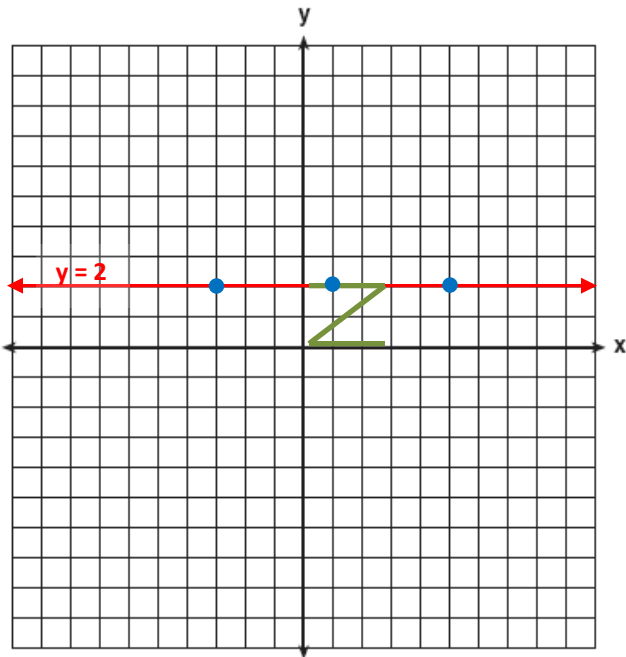


Name:

Date:

Period:



Plot the points (1, 2), (-3, 2), (5, 2) and draw the line that connects them

Describe the line: **It is HORIZONTAL**

Tell me about the y-values anywhere on the line:

The value is always 2.

Does the line EVER touch the x-axis? **NO**. So, we can say it is **parallel to the x-axis.**

Where does the line cross the y-axis? **(0, 2)**

What is the slope of this line? **ZERO**

For any **HORIZONTAL** line, the slope of the line will equal **ZERO** and the equation will be

Y = WHATEVER NUMBER THE Y-INTERCEPT IS

In conclusion, the equation of this line is **y = 2.**

Remember the trick...

A ZERO SLOPE LINE MAKES A "Z" WITH THE AXIS

Plot the points (-3, 5), (-3, -4), (-3, -8) and draw the line that connects them

Describe the line: **It is VERTICAL**

Tell me about the x-values anywhere on the line:

The value is always -3.

Does the line EVER touch the y-axis? **NO**. So, we can say it is **parallel to the y-axis.**

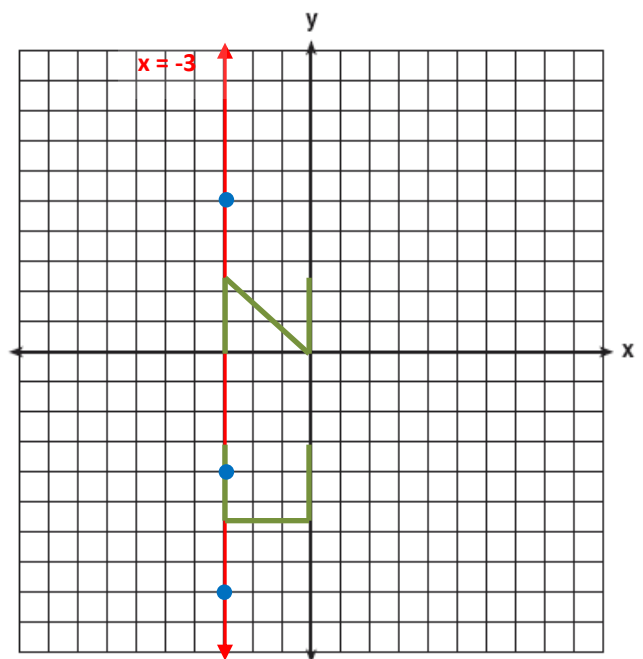
Where does the line cross the x-axis? **(-3, 0)**

What is the slope of this line? **UNDEFINED OR NO SLOPE**

For any **VERTICAL** line, the slope of the line will be **UNDEFINED**, and the equation will be

X = WHATEVER NUMBER THE X-INTERCEPT IS

In conclusion, the equation of this line is **x = -3.**



Remember the trick...

AN UNDEFINED (NO) SLOPE MAKES A "U" OR "N" WITH THE AXIS.

1. Write the equation of the line parallel to the x-axis with a y-intercept of -6.

2. The line $x = 1$ is a _____ line, with a(n) _____ slope that is parallel to the _____-axis.