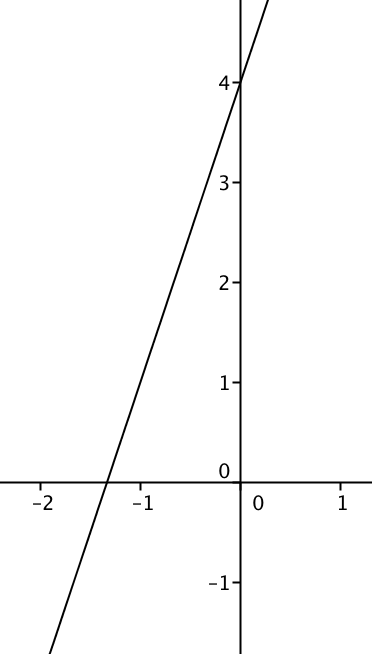
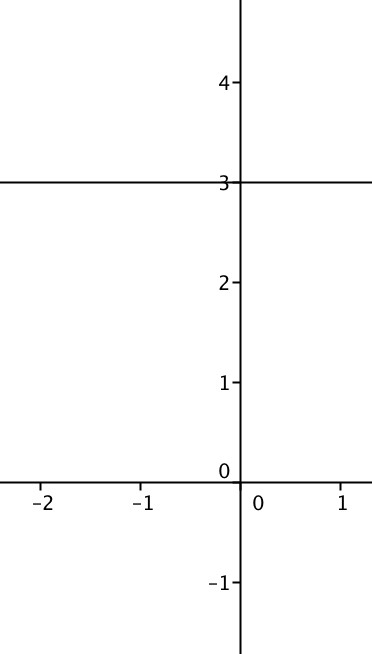
Calculus 1.3 Lines in the Plane and Slope

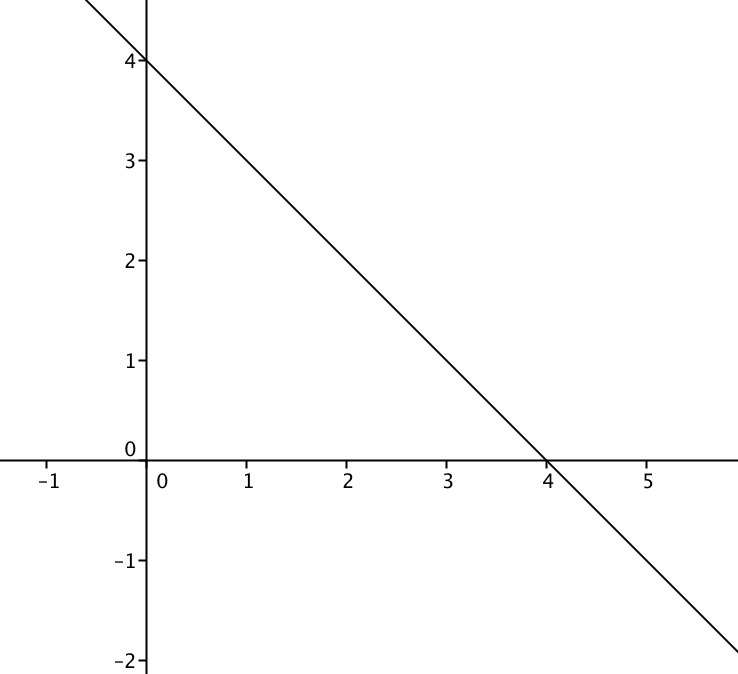
What is the slope intercept form?

What does each letter stand for?

Graph the following lines.







Slope is defined as the change of the y coordinates divided by the change in the x coordinates.

Find the slope between the following points:

(2, 4) (-4, 7)

undefined

When the slope is , the slope is 0.

When the slope is the slope is undefined.

What is the point-slope formula?

If the slope is 3 and the point is (-2, 5), write the equation of the line.

If the slope is -2 and the point is (4, -9), write the equation of the line.

HOY means Horizontal line 0 slope Y = a number

VUX means Vertical line Undefined slope X = a number

The equation of the line passing through (-2, 7) with 0 slope is

The equation of the line passing through (3, -12) with undefined slope is

What is the general form of a line?

Parallel lines have the same slope.

Perpendicular lines have negative reciprocal slopes.

Write the equation of the line parallel to the line , passing though the point (-2, 3).

Change to slope intercept form.

The slope is -1. The parallel line has slope -1.

Write the equation of the line perpendicular to , passing though

(5, -14).

Change to slope intercept form.

The slope is . The perpendicular slope is .