Linear Functions Review

Formula for Slope

Find the slope of a line through points (3, 4) and (-1, 6).

Standard Form

Change $y = \frac{3}{4}x - 2$ into Standard form.

Slope-intercept Form

Change $3x - 5y = 15$ into Slope-Intercept form and identify the slope and y-intercept.

Point-Slope Form

Write an equation for the line that passes through (-2, 5) and (1, 7)

Finding the intercepts

Find the x- and y-intercept of $3x - 5y = 15$

Horizontal Lines

Slope

Equation form

Write an equation of a line and graph it

- With zero slope and y-intercept of –2

- Through (2, 4) and (-3, 4)

Vertical Lines

Slope

Equation form

Write an equation of a line and graph it

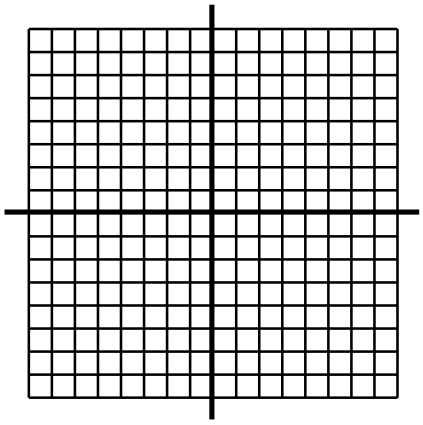
- With an undefined slope and (1, 0)

- Through (3, 5) and (3, -2)

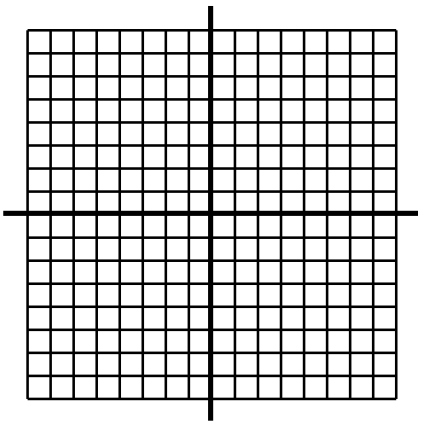
Graphing Lines

- Using x and y intercepts

Graph using x and y intercepts $2x – 3y = -12$



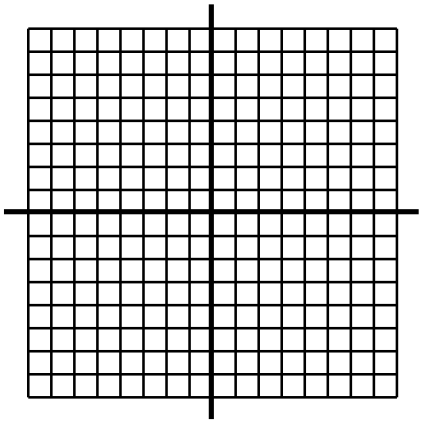
Graph using x and y intercepts $6x + 9y = 18$



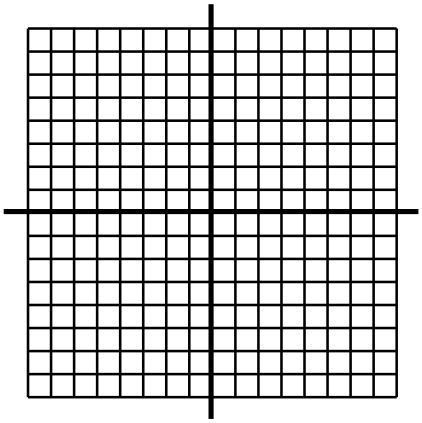
Graphing Lines

· Using slope-intercept form

Graph using slope-intercept form
$y = -3x + 1$



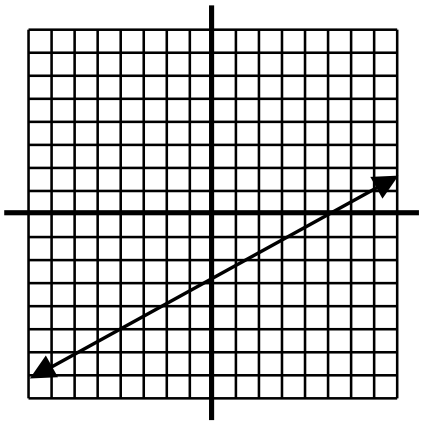
Graph using slope-intercept form
$3x - 4y = 8$



Parallel Lines

Parallel lines have _____.

Graph a line parallel to the given line and through point (0, -1)



· Draw a line parallel to a given line on graph

· Write an equation of a line parallel to a given line

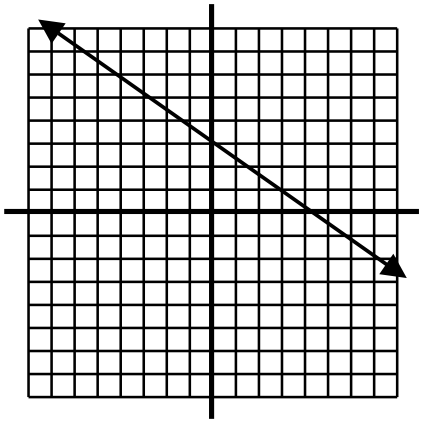
Write the equation of a line parallel to $2x – 4y = 8$ and containing (-1, 4).

Perpendicular Lines

Perpendicular lines have _____.

- Draw a line perpendicular to a given line on graph

Graph a line perpendicular to the given line and through point (1, 0)



- Write an equation of a line perpendicular to a given line

Write the equation of a line perpendicular to $y = -2x + 3$ and containing (3, 7).

Write the equation of a line perpendicular to $3x – 4y = 8$ and containing (-1, 4).