

Topic 19: Graph and write equations of lines

1. Find an equation of the line in slope-intercept form which passes through (3,-5) and is parallel to the line $x - 3y = 6$.
2. Find an equation of the line in both general and slope-intercept form which passes through the point (4,3) and is perpendicular to the line $2x + 3y = 5$.
3. Find the slope of a line perpendicular to the line passing through the points A=(-1,5) and B=(3,-2). Find the equation of a horizontal line containing point A.
4. Sketch the graph of the line $3x - 4y = 6$ and label the intercepts.

Answers

1. $y = \frac{1}{3}x - 6$

2. $6 = 3x - 2y, \quad y = \frac{3}{2}x - 3$

3. Slope = $\frac{4}{7}$ Line is $y = 5$.

4.

