

## IIT Madras ONLINE DEGREE

## Examples

Find the equation of a line perpendicular to the line x - 2y + 3 = 0 and passing through the point (-1,2).

The slope of the given line is  $m_1 = \frac{1}{2}$ .

The slope of a line perpendicular to the given line is  $m_2 = -1/m_1 = -2$ .

To find the equation of the line passing through the point (-1,2) and slope -2.

$$(y - 2) = -2 (x + 1)$$
 or  $y = -2x$ .

