

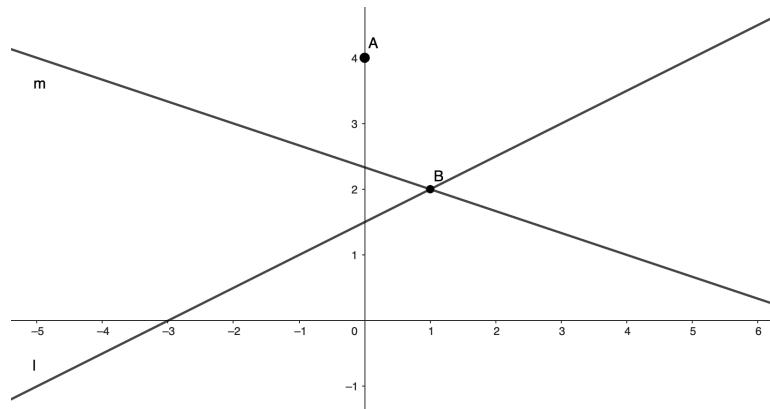
Point A has coordinates $(0, 4)$, and there are two lines, $l : y = \frac{1}{2}x + \frac{3}{2}$, $m : y = -\frac{1}{3}x + \frac{7}{3}$. Let B be the intersections of these two lines. Additionally, let point C lie on line m , and let point D lie on line l , creating parallelogram $ABCD$.¹

(1): Find the equation of a line that passes through point A and is parallel to line m .

Hint: The slopes of two parallel lines are always equal.

(2): Find the coordinates of point D .

(3): Find the coordinates of point C .



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