

1.3.1: Determining the Equation of a Line (Exercises)

SECTION 1.3 PROBLEM SET: DETERMINING THE EQUATION OF A LINE

Write an equation of the line satisfying the following conditions.

Write the equation in the form $y = mx + b$.

1) It passes through the point (3, 10) and has slope = 2.	2) It passes through point (4,5) and has $m = 0$.
3) It passes through (3, 5) and (2, - 1).	4) It has slope 3, and its y-intercept equals 2.
5) It passes through (5, - 2) and $m = 2/5$.	6) It passes through (- 5, - 3) and (10, 0).
7) It passes through (4, - 4) and (5, 3).	8) It passes through (7, - 2) ; its y-intercept is 5.
9) It passes through (2, - 5) and its x-intercept is 4.	10) Its a horizontal line through the point (2, - 1).

SECTION 1.3 PROBLEM SET: DETERMINING THE EQUATION OF A LINE

Write an equation of the line satisfying the following conditions.

Write the equation in the form $y = mx + b$.

11) It passes through (5, - 4) and (1, - 4).	12) It is a vertical line through the point (3, - 2).
13) It passes through (3, - 4) and (3, 4).	14) It has x-intercept = 3 and y-intercept = 4.

Write an equation of the line satisfying the following conditions.

Write the equation in the form $Ax + By = C$.

15) It passes through (3, - 1) and $m = 2$.	16) It passes through (- 2, 1) and $m = - 3/2$.
17) It passes through (- 4, - 2) and $m = 3/4$.	18) Its x-intercept equals 3, and $m = - 5/3$.

SECTION 1.3 PROBLEM SET: DETERMINING THE EQUATION OF A LINE

Write an equation of the line satisfying the following conditions.

Write the equation in the form $Ax + By = C$.

19) It passes through (2, - 3) and (5, 1).	20) It passes through (1, - 3) and (- 5, 5).
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Write an equation of the line satisfying the following conditions.

Write the equation in point slope form $y - y_1 = m(x - x_1)$

21) It passes through (2, - 3) and (5, 1).	22) It passes through (1, - 3) and (- 5, 2).
23) It passes through (6, -2) and (0, 2).	24) It passes through (8, 2) and (-7, -4).
25) It passes through (-12, 7) and has slope = -1/3.	26) It passes through (8, - 7) and has slope 3/4.

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