Warm up

$y = mx + b$

$y - y_1 = m(x - x_1)$

Find the equation of the line (in general form) that goes through the points A(3,4) and B(-5, 6).

$m = \frac{y_2 - y_1}{x_2 - x_1}$

$= \frac{6-4}{-5-3}$

$= \frac{2}{-8}$

$= -\frac{1}{4}$

$y - y_1 = m(x - x_1)$

$y - 4 = -\frac{1}{4}(x - 3)$

$4(y-4) = -1(x-3)$

$4y - 16 = -x + 3$

$x + 4y - 16 - 3 = 0$

$x + 4y - 19 = 0$

Problems with homework?

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#4, 5, 6, 7, 8, 12, 13, 22, 23

Worksheet - Equation of a Line.pdf Worksheet Solutions - Equation of a Line.pdf

Check Up... Finding the Equation of a Line

#1. Determine the equation of the line given that...
(Put equations in slope-y-intercept Form)

a) the line passes through the points (-3, 5) & (-2, -7)

b) the line passes through the point (-2, 3) has the same slope as the line $3x - 2y - 5 = 0$

c) the line has an x-intercept of 4 and a y-intercept of -3

d) passes through the point (-3,0) and is perpendicular to the line $3x-12y+2=0$

#2. Determine the equation of each of the following lines...

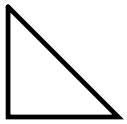
(Express equations in GENERAL FORM)

a) passing through the ordered pair (-2, 3) and with slope 5/3

b) passing through the ordered pairs (6, -1) and (0, -3)

c) passing through the point (1, 2) and parallel to the line $2x - 5y + 1 = 0$

#3. Show that the triangle whose vertices have the coordinates (3, 3), (8, 17) & (11, 5) is a right triangle.



Attachments

Worksheet - Equation of a Line.pdf

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