

In-class section

Notes on equations of lines

$Y - Y_1 = m(X - X_1)$ point/slope

Write equation of line with slope of $\frac{2}{3}$ passing through $(-4, 2)$

$Y - 2 = \frac{2}{3}(X - (-4))$

$Y - 2 = \frac{2}{3}(X + 4)$

pt/slope
change to SIF

$Y - 2 = \frac{2}{3}X + 4$

$Y = \frac{2}{3}X + 6$

Given 2 pts, write equation

$(1, 2)$ $(5, 10)$

$\frac{10 - 2}{5 - 1} = \frac{8}{4} = 2$

$Y - 2 = 2(X - 1)$

Write eq. line parallel to $Y = \frac{1}{3}X - 4$ passing through $(-6, 5)$

$Y - 5 = \frac{1}{3}(X + 6)$

eq. of line \perp to $Y = \frac{2}{5}X + 4$ passing through $(4, -3)$

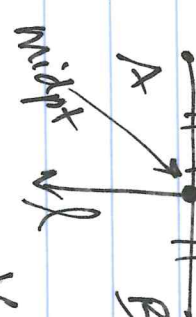
$Y - Y_1 = m(X - X_1)$ x_1, y_1

$Y + 3 = \frac{5}{2}(X - 4)$

Write the equation of the \perp bisector of \overline{AB}

$A(-2, 4)$ $B(4, -6)$

$\frac{-4 - 4}{4 + 2} = \frac{-8}{6} = \frac{-4}{3}$



midpt of $\overline{AB} = (1, -1)$

$Y - Y_1 = m(X - X_1)$

$Y + 1 = \frac{3}{2}(X - 1)$

HW# p 212: 1-2, 4, 18

6-11, 13