HW #4

p140 #13, 14, 17, 19

Write an eqn of a line ||:

13) $P(\overset{x_1}{0}, \overset{y_1}{-1})$ $y = -2x + 3$

$m = -2$

$\|m = -2$

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

$y - -1 = -2(x - 0)$

$y + 1 = -2x$ or $y = -2x - 1$

14) $P(\overset{x_1}{3}, \overset{y_1}{8})$ $y = \frac{1}{5}(x + 4)$

$y = \frac{1}{5}x + \frac{4}{5}$

$m = \frac{1}{5}$

$\|m = \frac{1}{5}$

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

$y - 8 = \frac{1}{5}(x - 3)$

4-4

Write an eqn of a line $\perp$

17) $P(\overset{x_1}{0}, \overset{y_1}{0})$ $y = -9x - 1$

$m = -9$

$\perp m = \frac{1}{9}$

$y - 0 = \frac{1}{9}(x - 0)$

$y = \frac{1}{9}x$

19) $P(\overset{x_1}{2}, \overset{y_1}{3})$ $y - 4 = -2(x + 3)$

$y - 4 = -2x - 6$

$+4 \qquad +4$

$y = -2x - 2$

$m = -2$

$\perp m = \frac{1}{2}$

$y - 3 = \frac{1}{2}(x - 2)$