$(3,4)$; $y < 4x - 2$

$4 < 4(3) - 2$

$4 < 12 - 2$

$4 < 10$ ✓

$(2,2)$; $y \leq 4x - 6$

$2 \leq 4(2) - 6$

$2 \leq 8 - 6$

$2 \leq 2$ ✓

$(0,-1)$; $-10x + 4y \geq -4$

$-10(0) + 4(-1) \geq -4$

$0 - 4 \geq -4$

$-4 \geq -4$ ✓

$(-3,2)$;

$7x + 9y > -3$

$7(-3) + 9(2) > -3$

$-21 + 18 > -3$

$-3 > -3$

false

$(-4,4)$

$4x + 5y \geq -6$

$4(-4) + 5(4) \geq -6$

$-16 + 20 \geq -6$

$4 \geq -6$ ✓

$-2x + 7y \geq 20$

$-2(-4) + 7(4) \geq 20$

$8 + 28 \geq 20$

$36 \geq 20$ ✓

Solution

$(3,5)$

$7x - 9y < 5$

$7(3) - 9(5) < 5$

$21 - 45 < 5$

$-24 < 5$ ✓

$-2x + 4y > 5$

$-2(3) + 4(5) > 5$

$-6 + 20 > 5$

$14 > 5$ ✓

Solution

$(-1,0)$

$-7x + 3y > -1$

$-7(-1) + 3(0) > -1$

$7 + 0 > -1$

$7 > -1$ ✓

$5x - 9y > -6$

$5(-1) - 9(0) > -6$

$-5 + 0 > -6$

$-5 > -6$ ✓

Solution

$(5,-5)$

$8x - 3y < 4$

$8(5) - 3(-5) < 4$

$40 + 15 < 4$

$55 < 4$ x

$9x + 2y < -1$

No solution

$4x + 7y \leq -21$

$-4x \qquad -4x$

$\frac{7y}{7} \leq \frac{-21-4x}{7}$

$y \leq -3 - \frac{4}{7}x$

$y \leq -\frac{4}{7}x - 3$

$-12x - 4y < 5$

$+12x \qquad +12x$

$\frac{-4y}{-4} < \frac{12x+5}{-4}$

$y > -3x - \frac{5}{4}$

$-3x - 4y \leq 2$

$+3x \qquad +3x$

$\frac{-4y}{-4} \leq \frac{3x+2}{-4}$

$y \geq -\frac{3}{4}x - \frac{1}{2}$

$-5x + 6y > 12$

$+5x \qquad +5x$

$\frac{6y}{6} > \frac{12+5x}{6}$

$y > \frac{5}{6}x + 2$

$-x + 8y > -24$

$+x$

$\frac{8y}{8} > \frac{x - 24}{8}$

$$\boxed{y > \frac{1}{8}x - 3}$$

$-5x + 3y \geq 9$

$+5x$

$\frac{3y}{3} \geq \frac{9 + 5x}{3}$

$y \geq 3 + \frac{5}{3}x$

$$\boxed{y \geq \frac{5}{3}x + 3}$$

$-5x + 4y \geq -1$

$+5x \qquad +5x$

$\frac{4y}{4} \geq \frac{5x - 1}{4}$

$y \geq \frac{5}{4}x - \frac{1}{4}$

$10x + 5y > -4$

$-10x \qquad -10x$

$\frac{5y}{5} > \frac{-10x - 4}{5}$

$$\boxed{y > -2x - \frac{4}{5}}$$

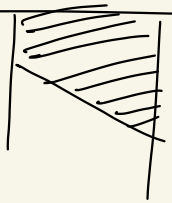
$y = mx + b$

$y = 3x - 4$

$y < 3x - 4$

$y = -\frac{2}{3}x + 3$

$y > -\frac{2}{3}x + 3$



$y >$

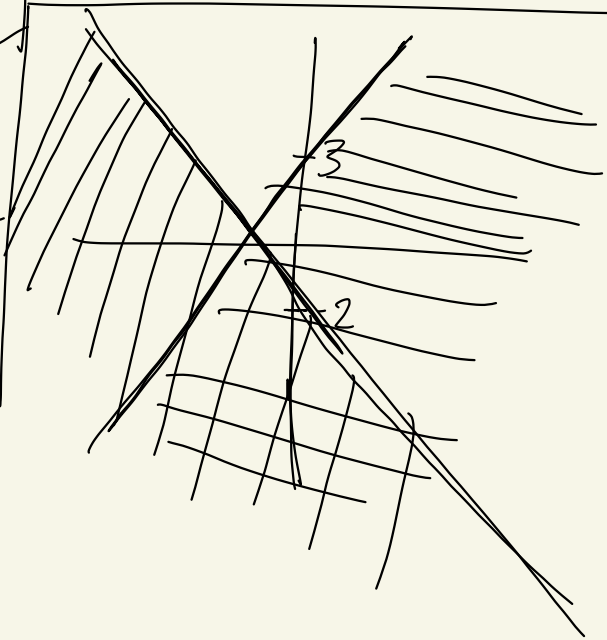
$y = -2x - 5$

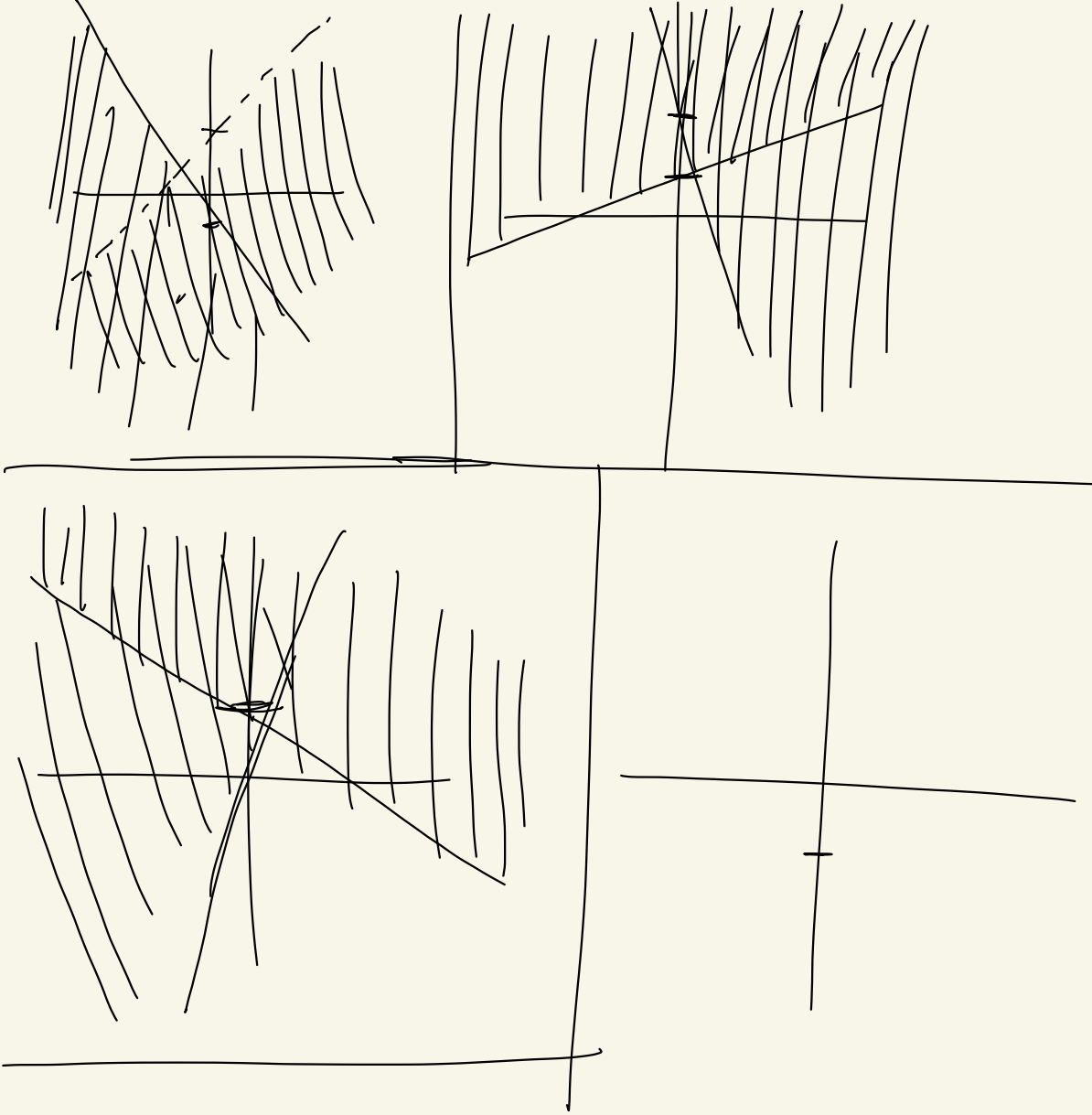
$y \geq -2x - 5$

$y <$

$y = \frac{5}{2}x + 5$

$y \leq \frac{5}{2}x + 5$





$y = mx + b$

$y = -\frac{2}{3}x + 3$

$\boxed{y > -\frac{2}{3}x + 3}$

$-12x - 4y < 5$

$+12x \quad +12x$

$\frac{-4y}{-4} < \frac{12x + 5}{-4}$

$y > -3x - \frac{5}{4}$

$y = mx + b$

$y = -2x - 5$

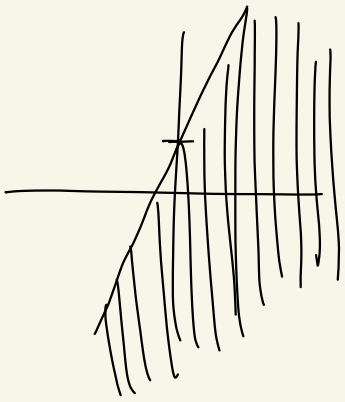
$\boxed{y \geq -2x - 5}$

$-9x + 4y \leq 8$

$+9x \quad +9x$

$\frac{4y}{4} \leq \frac{9x + 8}{4}$

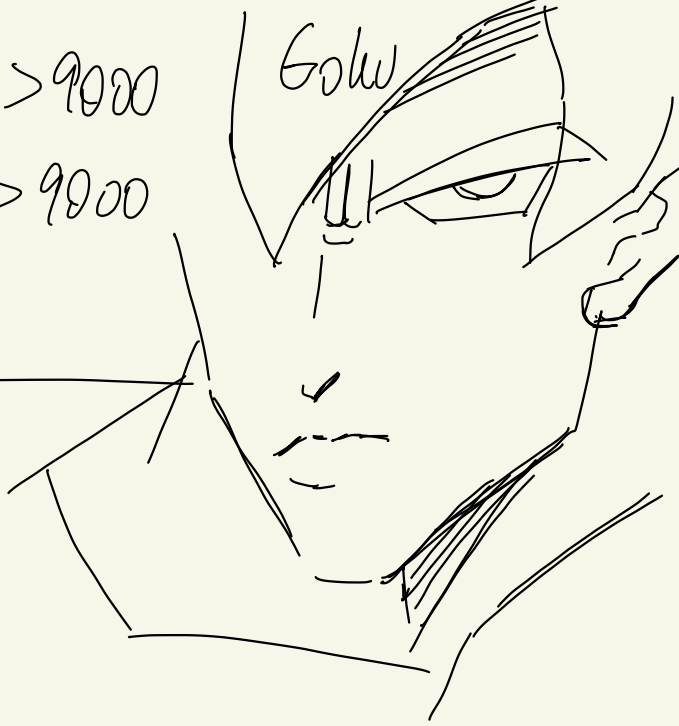
$y \leq \frac{9}{4}x + 2$



$750(8) + 450(7) > 9000$

$6000 + 3150 > 9000$

9150



$6.5 \leq 1W + 0.50$

$1W + 0.50 \geq 6.5$

$5C + 3Q < 26$

$85M + 4S \leq 1000$

$3S + 2M \leq 25$ | $4S + 6M \leq 37$

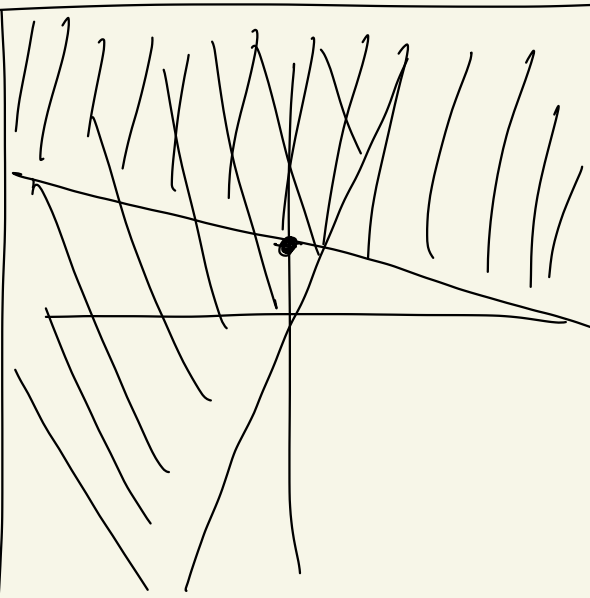
$250C + 180C > 950$

$-5x + 3y \geq 9$

$+5x \quad +5x$

$\frac{3y}{3} \geq \frac{5x + 9}{3}$

$y \geq \frac{5}{3}x + 3$



$(-1, 7)$

$2x + 5y > -6$

$2(-1) + 5(7) > -6$

$-2 + 35 > -6$

$33 > -6$ ✓

Not a solution

$-4x + 3y \leq 2$

$-4(-1) + 3(7) \leq 2$

$4 + 21 \leq 2$

$25 \leq 2$ x

$y = \frac{5}{2}x + 5$

$y \leq \frac{5}{2}x + 5$

$y = -\frac{3}{2}x - 2$

$y \leq -\frac{3}{2}x - 2$