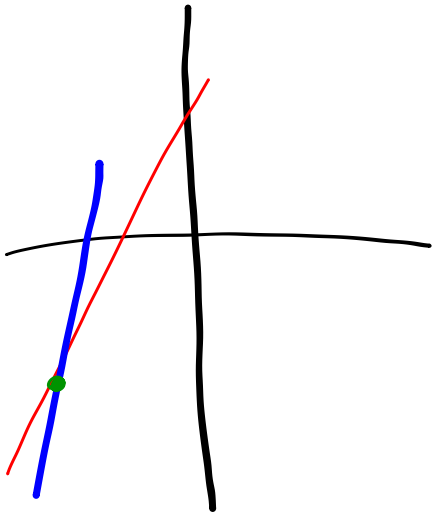
p. 476 (10) $2x+y=-15$

solve by substitution

$y-5x=6$

$+5x \quad +5x$

$y=5x+6$



$2x+5x+6=-15$

$-6 \quad -6$

$\frac{7x}{7}=\frac{-21}{7}$

$x=-3$

$y-5(-3)=6$

$y+15=6$

$-15 \quad -15$

$y=-9$

$x=-3$

$y=-9$

$(-3,-9)$

p. 477 (19) $x+6y=28$ $2x-3y=-19$

(use elimination)

$2(x+6y=28)$

$2x+12y=56$

$-2x+3y=+19$

$15y=75$

$\frac{15y}{15}=\frac{75}{15}$

$y=5$

$2x-3(5)=-19$

$2x-15=-19$

$+15 \quad +15$

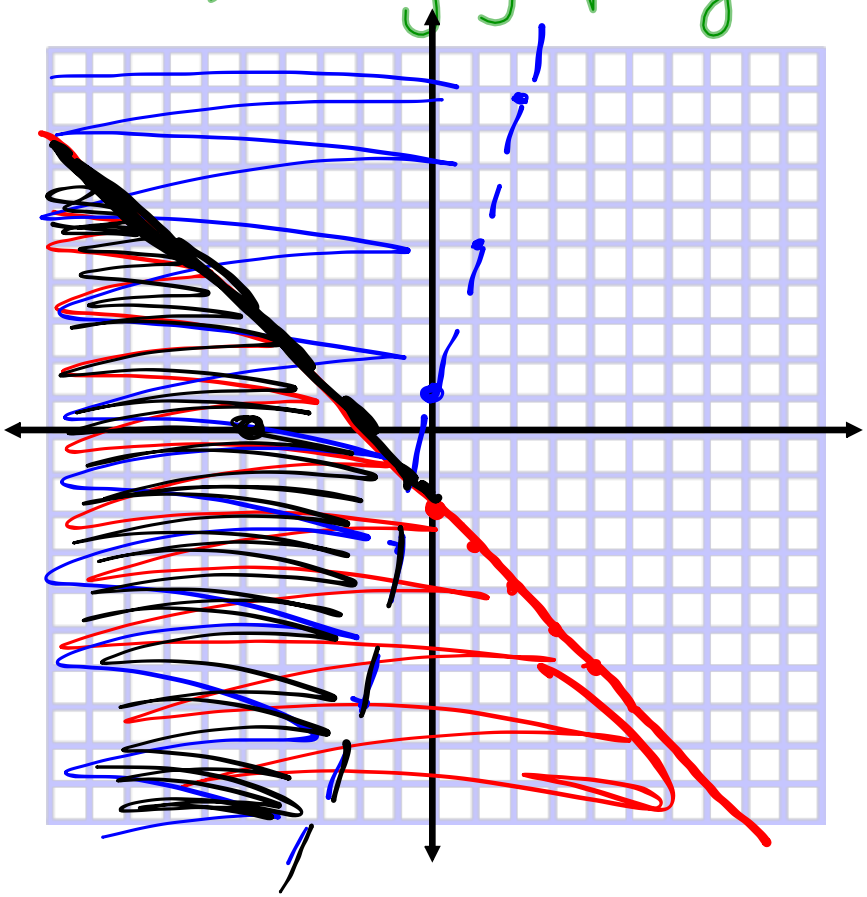
$\frac{2x=-4}{2}$

$x=-2$

$(-2,5)$

p. 478 (29) $y \leq -x-2$ $y > 4x+1$

solve by graphing



p. 618 (29) $3t^2 - 33t = 0$ Solve

$3t(t-11)=0$

$3t=0$ $t-11=0$

$t=0$ or $t=11$

p. 619 (47) $-4r^2 = 18r + 18$ solve by factoring

$-18r-18 \quad -18r \quad -18$

$$\frac{-4r^2 - 18r - 18 = 0}{-2 \qquad\qquad -2}$$

$$2r^2 + 9r + 9 = 0$$

$$(2r + 3)(r + 3) = 0$$

$2r + 3 = 0 \qquad r + 3 = 0$

$r = \frac{-3}{2}$ or $r = -3$

p. 620 (51) $z^2 - 225$ (54) $x^2 + 20x + 100$

$(z+15)(z-15)$ $(x+10)(x+10)$

p. 697 (10) graph $y = -2x^2 + 8x + 5$

$x = \frac{-b}{2a} = \frac{-8}{2(-2)} = 2$

$y = -2(2)^2 + 8(2) + 5$

$= -8 + 16 + 5$

$= 13$

Vertex: 2, 13

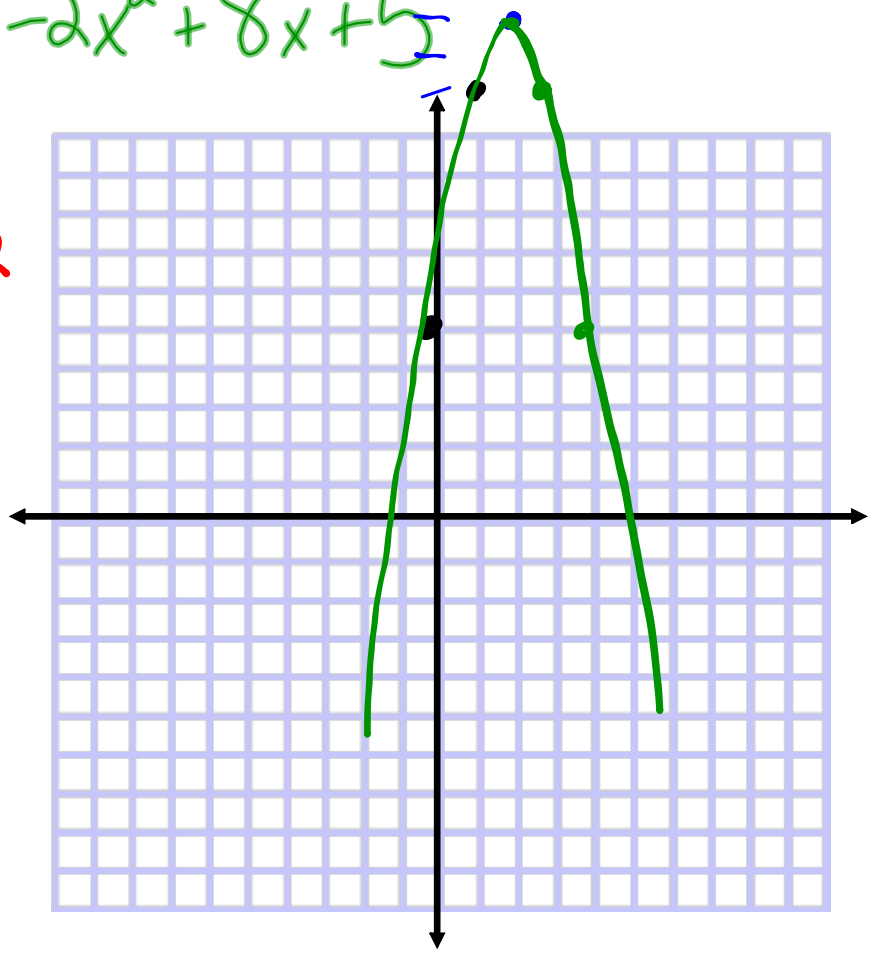
$y = -2(1)^2 + 8(1) + 5$

$= -2 + 8 + 5$

$= 11$

$y = -2(0)^2 + 8(0) + 5$

$= 5$



p. 699 (25) $2m^2+7m-3=0$ solve using quadratic formula

$$\frac{-b\pm\sqrt{b^2-4ac}}{2a}$$

$$\frac{-7+\sqrt{7^2-4(2)(-3)}}{2(2)}$$

$$\frac{-7+\sqrt{49+24}}{4}$$

$$\frac{-7+\sqrt{73}}{4} \qquad \frac{-7-\sqrt{73}}{4}$$

.386 or −3.89