

p. 476 ⑩  $2x + y = -15$      $y - 5x = 6$   
solve by substitution

$$y = (5x + 6)$$

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

$$7x + 6 = -15$$

$$7x = -21$$

$$x = -3$$

$$y - 5(-3) = 6$$

$$y + 15 = 6$$

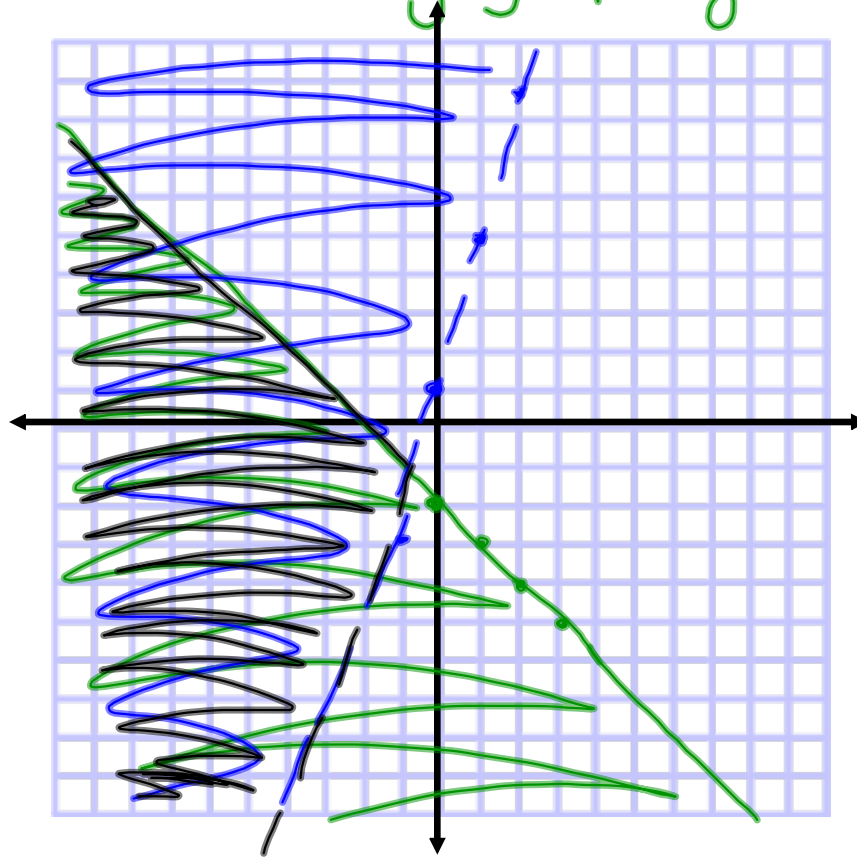
$$y = -9$$

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

$$\begin{array}{r} x + 6y = 28 \\ 4x - 6y = -38 \\ \hline 5x = -10 \\ \frac{5x}{5} = \frac{-10}{5} \\ \boxed{x = -2} \end{array}$$

$$\begin{array}{r} -2 + 6y = 28 \\ 6y = 30 \\ \boxed{y = 5} \end{array}$$

P. 478 (29)  $y \leq -x - 2$   $y > 4x + 1$   
solve by graphing



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

$$3t(t - 11) = 0$$

$$\begin{array}{ll} 3t = 0 & t - 11 = 0 \\ t = 0 & t = 11 \end{array}$$

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

$$-1 (-4r^2 - 18r - 18) = 0 \quad -1$$

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

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

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

$$\begin{matrix} 9 & 1 \\ 3 & 3 \end{matrix}$$

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

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

p. 620 (51)  $z^2 - 225$

$$(z + 15)(z - 15)$$

(54)  $x^2 + 20x + 100$

$$(x + 10)(x + 10)$$

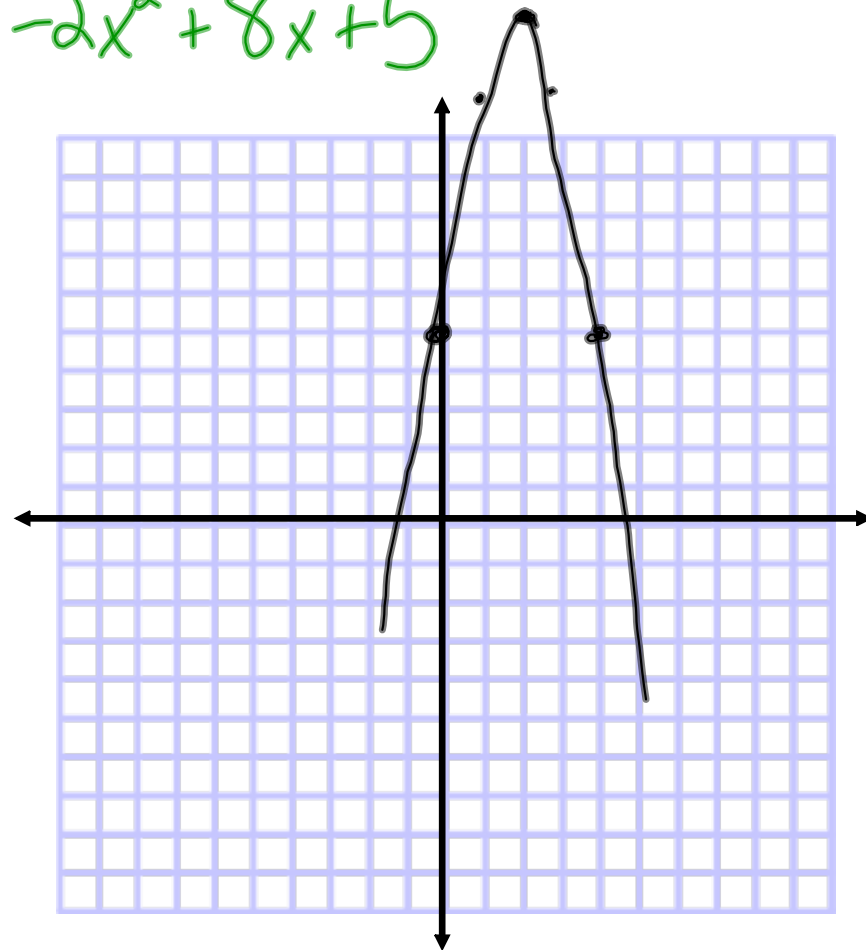
p. 697 ⑩ graph  $y = -2x^2 + 8x + 5$

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

$$\frac{-8}{-4} = 2$$

$$\begin{aligned} y &= -2(2^2) + 8(2) + 5 \\ &= -8 + 16 + 5 \\ &= 13 \end{aligned}$$

x	y
0	5
1	11



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

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

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

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

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

$$\boxed{0.37}$$

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

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

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

$$\boxed{-3.89}$$