p. 194 (35) $\frac{\frac{1}{12}(\overset{24}{\cancel{48}}+\overset{12}{\cancel{24}}b)}{\cancel{2}} = \frac{\cancel{2}(17-4b)}{\cancel{2}}$

$2+b = 17-4b$

$-2 \quad +4b \quad -2 \quad +4b$

$\frac{5b}{5} = \frac{15}{5}$ $b=3$

p. 195 (49) $\frac{n+8}{5n-2} = \frac{3}{8}$

$3(5n-2) = 8(n+8)$

$15n-6 = 8n+64$

$-8n+6 \quad -8n+6$

$\frac{7n}{7} = \frac{70}{7}$

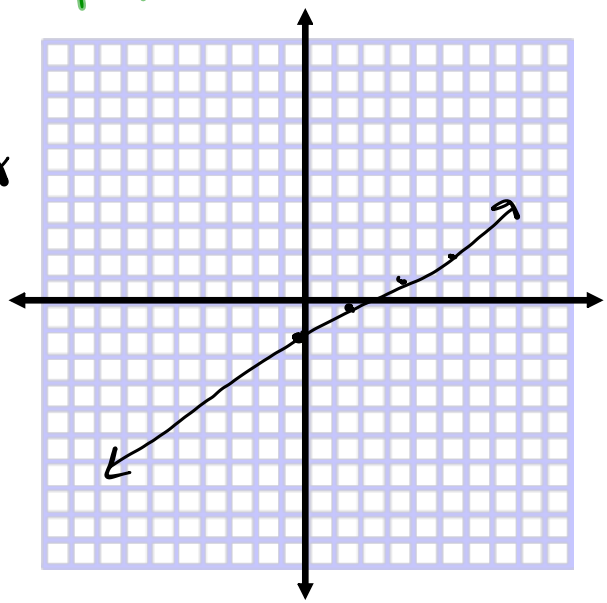
$n=10$

p. 273 (16) slope (-2,0) and (4,9)

$$m = \frac{y_2 - y_1}{x_2 - x_1} = \frac{9-0}{4+2} = \frac{9}{6} = \boxed{\frac{3}{2}}$$

p. 273 (19) graph (slope/intercept)

$$3x - 6y = 9$$
$$-3x \qquad -3x$$
$$\frac{-6y}{-6} = \frac{-3x+9}{-6}$$
$$y = \frac{1}{2}x + \frac{-3}{2}$$



p. 346 (10) equation for $(8,-4)$ $m=-3$

$y=mx+b$

$y=-3x+b$

$-4=-3(8)+b$

$-4=-24+b$

$+24 \quad +24$

$20=b$

$y=-3x+20$

p. 346 (12) equation for (9,-2) (-3,2)

$y = mx + b$

$m = \frac{y_2 - y_1}{x_2 - x_1} = \frac{2 - -2}{-3 - 9} = \frac{4}{-12} = -\frac{1}{3}$

$y = -\frac{1}{3}x + b$

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

$2 = 1 + b$

$-1 \quad -1$

$1 = b$

$y = -\frac{1}{3}x + 1$

p. 347 (19) equation of $\parallel$ & $\perp$ $(2, -3)$ $y = -2x - 3$

parallel — $m = -2$

$y = -2x + b$

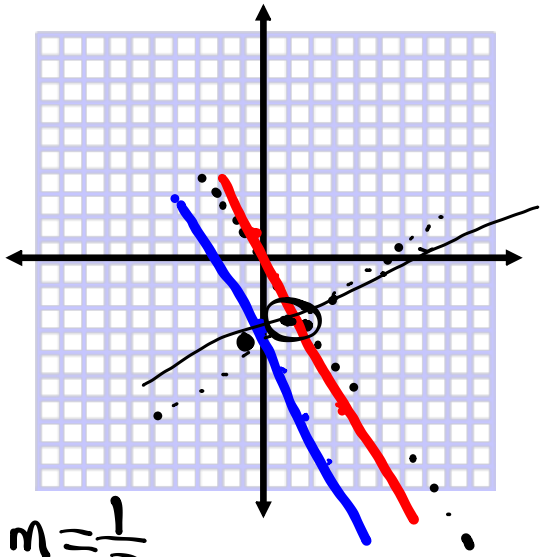
$-3 = -2(2) + b$

$-3 = -4 + b$

$+4 \quad +4$

$1 = b$

$y = -2x + 1$



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

$y = mx + b$ $\quad -3 = \frac{1}{2}(2) + b$

$y = \frac{1}{2}x + b$ $\quad -3 = 1 + b$ $\quad b = -4$

$-1 \quad -1$

$y = \frac{1}{2}x - 4$

p. 417 (21) $-3 < -3x + 8 < 11$

$-3 < -3x + 8$

$-3x + 8 > -3$

$-8 \quad -8$

$\frac{-3x}{-3} > \frac{-11}{-3}$

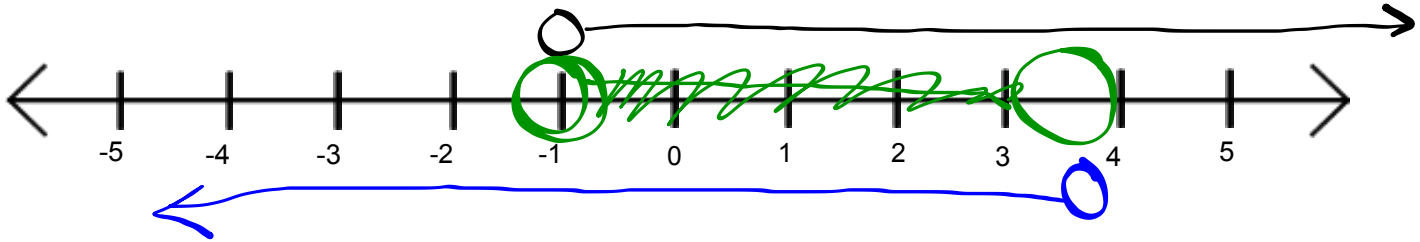
$x < 3\frac{2}{3}$

$-3x + 8 < 11$

$-8 \quad -8$

$\frac{-3x}{-3} < \frac{3}{-3}$

$x > -1$



p. 417 (22)

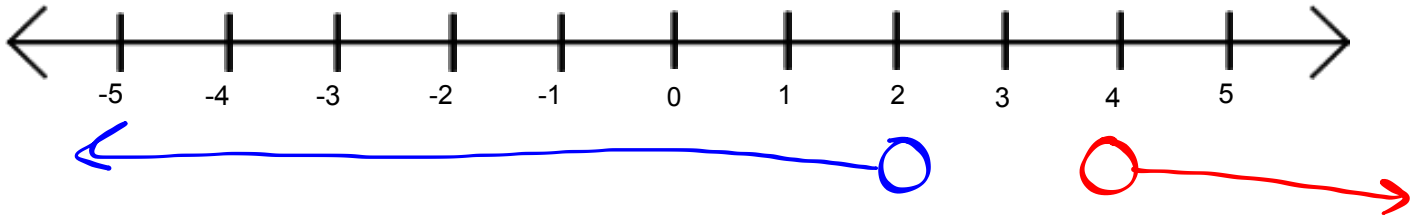
$9s - 6 < 12$ or $3s + 1 > 13$

$+6 \quad +6$ $\quad -1 \quad -1$

$9s < 18$ $\quad 3s > 12$

$\frac{9s}{9} < \frac{18}{9}$ $\quad \frac{3s}{3} > \frac{12}{3}$

$s < 2$ $\quad s > 4$



p. 418 (43) graph $3x-2y<12$

$3x-2y<12$

$-3x \quad -3x$

$\frac{-2y}{-2} < \frac{-3x}{-2} + \frac{12}{-2}$

$y > \frac{3}{2}x - 6$

$0 > -6$