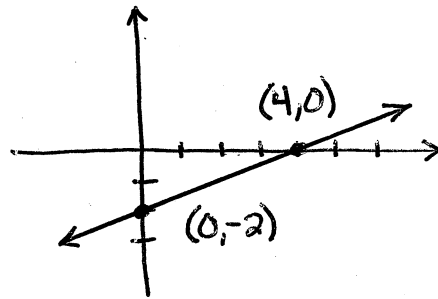
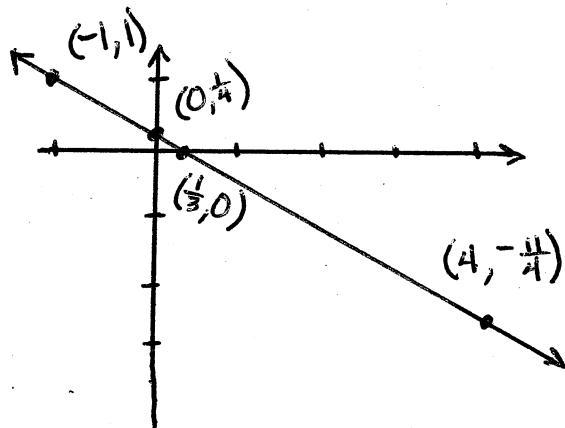


Pg 12 #45, 46, 95, 96, 97

④⑤  $x - 2y = 4$   
 $-2y = -x + 4$   
 $y = \frac{1}{2}x - 2$   
slope:  $m = \frac{1}{2}$   
y-int:  $(0, -2)$



④⑥  $3x + 4y = 1$   
 $4y = -3x + 1$   
 $y = -\frac{3}{4}x + \frac{1}{4}$   
slope:  $m = -\frac{3}{4}$   
y-int:  $(0, \frac{1}{4})$



④⑤ A slope of  $-3$  is steeper than a slope of  $\frac{5}{2}$  since  $|-3| = 3 > \frac{5}{2}$ .

④⑥ Two lines with positive slopes cannot be perpendicular since the product of two positive numbers cannot be  $-1$ . Perpendicular slopes have a product of  $-1$  (except vertical and horizontal lines).

④⑦ I could show that the points are non-collinear by showing that none of the slopes for  $\overline{AC}$ ,  $\overline{AB}$ , and  $\overline{BC}$  are equal. I could then show that  $\overrightarrow{AB}$  and  $\overrightarrow{AC}$  are perpendicular since  $\overrightarrow{AC}$  is a vertical line and  $\overrightarrow{AB}$  is a horizontal line.