

26.  $(8, 5)$ ,  $(7, -4)$

$$Ax + By = C$$

$$m = \frac{5 - (-4)}{8 - 7} = \frac{5 + 4}{8 - 7} = 9$$

$$y = mx + b$$

$$y = 9x - 67$$

$$5 = 9(8) + b$$

$$67 = 9x - y$$

$$5 = 72 + b$$

$$b = -67$$

18.  $y = \frac{9}{4}x + b$        $y = -\frac{9}{4}x$

parallel, perpendicular, **neither**

27.  **$(0, 0)$** ,  **$(-\frac{1}{8}, \frac{1}{7})$**        $y = mx + b$

$$m = \frac{0 - (\frac{1}{7})}{0 - (-\frac{1}{8})} = \frac{-\frac{1}{7}}{\frac{1}{8}} = -\frac{8}{7}$$

$$y = -\frac{8}{7}x$$

33. undefined slope       **$(\frac{1}{2}, -6)$**

$$x = \frac{1}{2}$$

31.  $m = \frac{1}{7}$   $(0, \frac{7}{2})$   $y = mx + b$

$$y = \frac{1}{7}x + \frac{7}{2}$$

37.  $\begin{cases} y = 5x + 6 \\ y = 9x + 7 \end{cases}$

$$5x + 6 = 9x + 7$$

$$6 = 4x + 7$$

$$-1 = 4x$$

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

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

$$y = \frac{19}{4}$$

$$y = 5\left(-\frac{1}{4}\right) + 6$$

$$y = -\frac{5}{4} + \frac{6 \cdot 4}{1 \cdot 4}$$

$$y = -\frac{5}{4} + \frac{24}{4}$$

$$y = \frac{19}{4}$$

$$42. \quad \begin{cases} 4x + 2y = 6 \\ 8x + 4y = 0 \end{cases}$$

$$-2(4x + 2y = 6)$$

$$8x + 4y = 0$$

$$-8x - 4y = -12$$

$$8x + 4y = 0$$

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$$0 = -12$$

no solution

inconsistent  
system

32.

$$(13, 10), (10, 13)$$

$$y = mx + b$$

$$m = \frac{10 - 13}{13 - 10} = \frac{-3}{3} = -1$$

$$10 = -1(13) + b$$

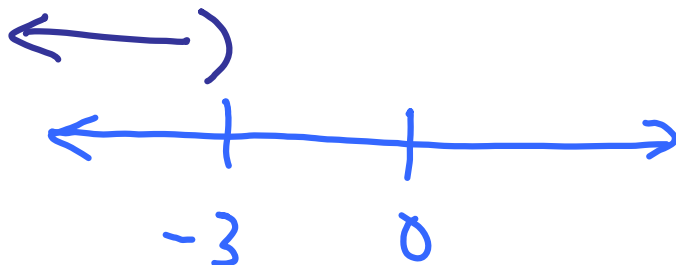
$$10 = -13 + b$$

$$y = -x + 23$$

$$b = 23$$

1.  $|x| < -15$

$$x < -3$$



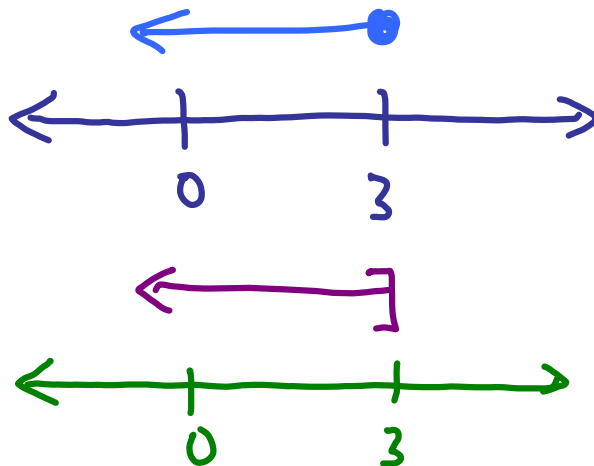
3.  $9x - 9 \leq 10x - 4x$

$$9x - 9 \leq 6x$$

$$3x - 9 \leq 0$$

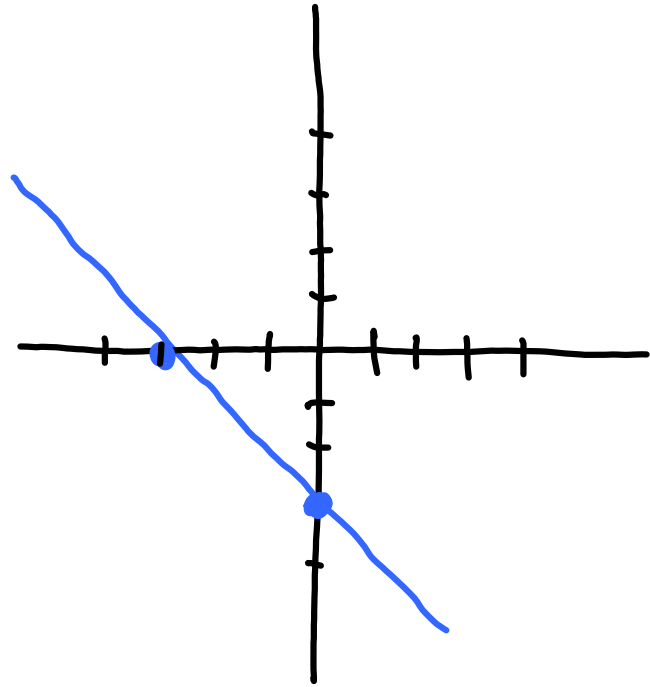
$$3x \leq 9$$

$$x \leq 3$$



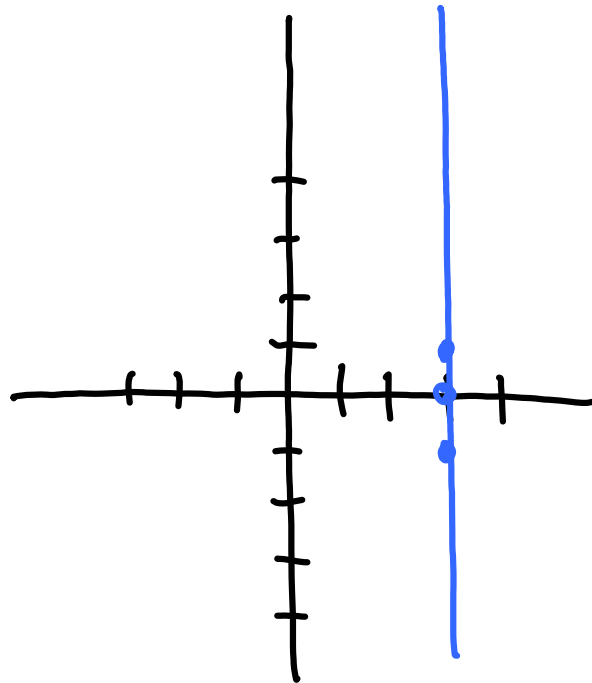
6.  $x + y = -3$

x	y
0	-3
-3	0



7.  $x = 3$

x	y
3	1
3	0
3	-1



$$11. \quad 4x - 8y = -8$$

x	y
0	1
-2	0

34.  $(5, 9)$  parallel y-axis

$$x = 5$$

25.  $m = \frac{3}{2}$ ,  $(6, -4)$

$$y = mx + b$$

$$-4 = \frac{3}{2} \left( \begin{matrix} 6 \\ -1 \end{matrix} \right) + b$$

$$-4 = 9 + b$$

$$y = \frac{3}{2}x - 13$$

$$b = -13$$

