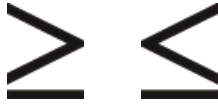


8.6 Graphing Inequalities

When graphing inequalities, make sure the variable is on the left.

● *closed circle*

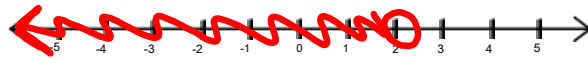


○ *open circle*



Graph the following:

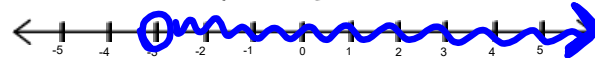
1. $x < 2$



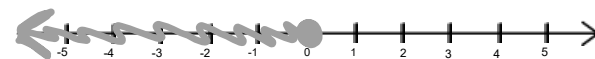
2. $x \geq -1$



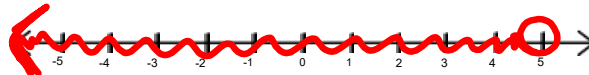
3. $-3 < x$ $x > -3$



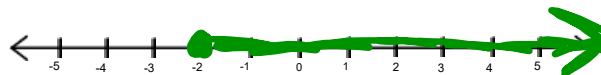
4. $x \leq 0$



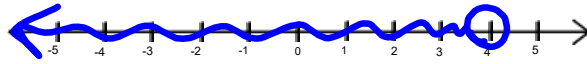
5. $x < 5$



6. $x \geq -2$

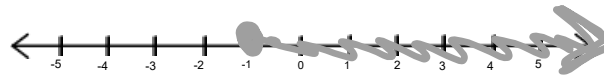


7. $4 > x$



$x < 4$

8. $-1 \leq x$



$x \geq -1$

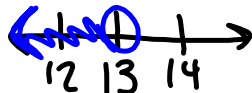
8.7 Part 1

Solve Inequalities Using Addition & Subtraction

Use inverse operations to solve the inequalities.

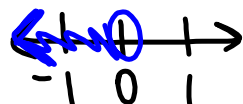
Solve and graph.

1. $x + 4 < 17$
 $-4 \quad -4$
 $x < 13$

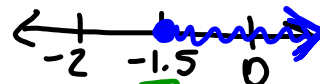


3. $-5 > a - 5$
 $+5 \quad +5$

$0 > a$
 $a < 0$

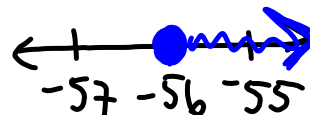


2. $3.5 + n \geq 2.0$
 $-3.5 \quad -3.5$
 $n \geq -1.5$



4. $-22 \leq k + 34$
 $-34 \quad -34$

$-56 \leq k$
 $k \geq -56$

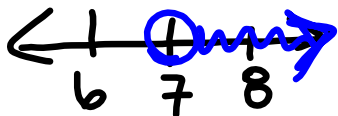


Solve and graph.

$$5. \quad x + 5 > 12$$

$$\quad \quad \quad -5 \quad -5$$

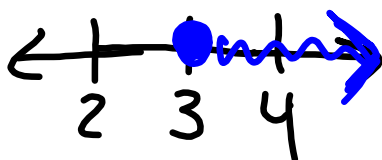
$$\quad \quad \quad \boxed{x > 7}$$



$$7. \quad x + 7 \geq 10$$

$$\quad \quad \quad -7 \quad -7$$

$$\quad \quad \quad \boxed{x \geq 3}$$



$$6. \quad y + 10 < 3$$

$$\quad \quad \quad -10 \quad -10$$

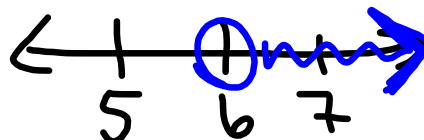
$$\quad \quad \quad \boxed{y < -7}$$



$$8. \quad y + 5 > 11$$

$$\quad \quad \quad -5 \quad -5$$

$$\quad \quad \quad \boxed{y > 6}$$

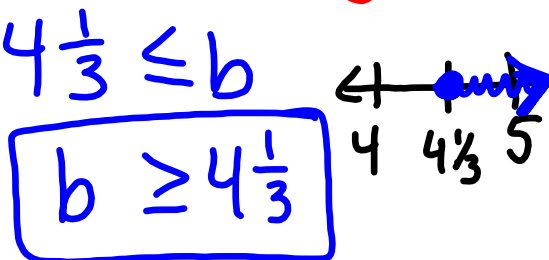


Solve and graph.

$$9. \quad 3 \leq b - 1\frac{1}{3}$$

$$\quad \quad \quad +1\frac{1}{3} \quad +1\frac{1}{3}$$

$$\quad \quad \quad 4\frac{1}{3} \leq b$$

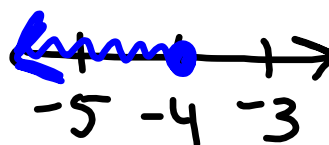


$$10. \quad 3 \geq g + 7$$

$$\quad \quad \quad -7 \quad -7$$

$$\quad \quad \quad -4 \geq g$$

$$\quad \quad \quad \boxed{g \leq -4}$$



$$11. \quad b + \frac{5}{7} > 2$$

$$12. \quad h - 1\frac{1}{2} < 5$$