

Solve the inequality

$$|2x-6| < 9$$

- Recall that  $|w| < a$  is equivalent to  $-a < w < a$  .

So the inequality  $|2x-6| < 9$  is equivalent to  $-9 < 2x-6 < 9$  .

- Add 6 to both sides,  $-9+6 < 2x < 9+6$  ,  $-3 < 2x < 15$
- Divide both sides of the last inequality by 2,  $-\frac{3}{2} < x < \frac{15}{2}$

