## Inequalities containing Absolute Value

## Algorithm

1. Isolate the absolute value
2. Set the expression and the opposite of the expression on the inside of the absolute value signs using the given inequality sign to the number on the outside
3. Solve the resulting two inequalities.

Solve the following equations.

1. $|x|<7$
2. $|x-1| \geq 8$
3. $|2 x+1| \leq 13$
4. $|x-2|+4<10$
5. $|2 x-3| \geq 13$
6. $|3(x-2)|>12$
7. $|-4 \mathrm{x}|<10$
8. $|3 x-1| \geq 5 x+15$
9. $|2 \mathrm{x}-6|<0$
10. $|5(2 \mathrm{x}+3)| \geq-10$
