L 2 Solving Inequalities

Inequalities (≥ ≤ > <)

- → **Both sides are not equal**
- → **You can still solve for x but it will have more than one solution**
- → **When solving an inequality we follow the same steps as solving equations.**
- → **All operations are safe to do on both sides of the inequality sign**
- → **EXCEPTION: when dividing (or multiplying) by a negative –we FLIP the inequality sign**

Ex: solve for x, write the solution set, interval notation and number line

1) $5x - 7 < 13$

S.S. :

Interval :

N.L. :

2) $4x + 2 \geq 8x - 6$

S.S. :

Interval :

N.L. :

Ex: solve for x, write the solution set, interval notation and number line

3) $2x - 7 \leq 9x + 14$

S.S. :

Interval :

N.L. :

4) $-\frac{1}{2}x + 3 \geq 9$

S.S. :

Interval :

N.L. :

Practice:

3.4 # 1-9