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# UNIT 4: INEQUALITIES

## ASSIGNMENT SHEET

- 1.) Page 337 #1 – 19 odd
- 2.) Page 337 – 338 #23 – 59 odd
- 3.) Page 337 – 338 #22 – 60 even
- 4.) Page 343 #1 – 14
- 5.) Page 343 #15 – 37 odd
- 6.) Page 343 #16 – 36 even
- 7.) Page 349 #12 – 34 even
- 8.) Page 356 #1 - 18
- 9.) Page 356 #41 – 59 odd
- 10.) Page 356 #40 – 60 even
- 11.) TBD
- 12.) TBD
- 13.) TBD
- 14.) TBD
- 15.) TBD

## Inequalities Survival Guide

### Inequality Signs

$<$  aka  $\lessgtr$  – less than

$>$  aka  $\gtrless$  – greater than

$\leq$  aka  $\lessgtr$  – less than or equal to

$\geq$  aka  $\gtrless$  – greater than or equal to

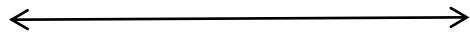
$\neq$  – not equal to

### Steps

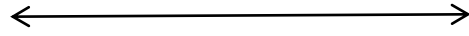
1. Clear Parenthesis
2. Clear Fractions **\*\*FLIP THE SIGN IF YOU MULTIPLY BY A NEGATIVE\*\***
3. Combine Like-Terms
4. Variables Left (or Right)
5. Constants Right (or Left)
6. Divide by the Coefficient **\*\*FLIP THE SIGN IF YOU DIVIDE BY A NEGATIVE\*\***
7. Graph on a Number Line

Solve and Graph the Inequality

E1.)  $10x + 3 > 63$



P1.)  $3x + 4 \leq -2$



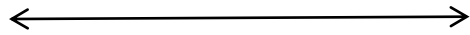
E2.)  $2n + 2(n + 6) \not\leq 84$



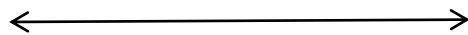
P2.)  $8x + 3 > 7x + 4$



E3.)  $4y < 9y - 20$



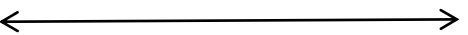
P3.)  $2m - 1 \not\leq 5m - 7$



E4.)  $-8 \leq 2x$



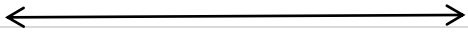
P4.)  $700 < -70x$



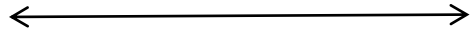
E5.)  $-3(x + 5) + 10 < 31$



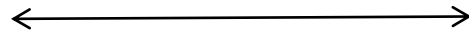
P5.)  $-3(x + 5) + 10 \geq 31$



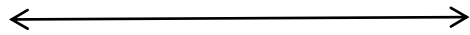
$$E6.) 8 \leq 2x + 6 \leq 18$$



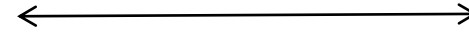
$$P6.) -13 \leq 5 - 2x < 9$$



$$E7.) -3x - 7 \geq 8 \text{ or } -2x - 11 \leq -31$$



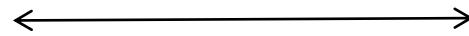
$$P7.) 3x + 8 > 17 \text{ or } 2x + 5 \leq 7$$



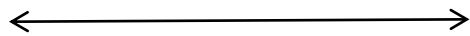
$$E8.) |3x + 1| < 10$$



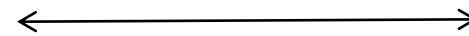
$$P8.) |2x - 5| < 15$$



$$E9.) 2|x - 3| + 7 \geq 21$$



$$P9.) 3|x + 4| - 5 \geq 10$$



## Warm-ups

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Use the provided spaces to complete any warm-up problem or activity

Date:	Date:
Date:	Date:
Date:	Date:
Date:	Date:
Date:	Date:

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Use the provided spaces to complete any warm-up problem or activity

Date:	Date:
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