Linear Inequalities

Contents

[1. Why learn? 2](#_Toc81154542)

[2. Examples 2](#_Toc81154543)

[3. Properties 2](#_Toc81154544)

[a. Addition and Subtraction 2](#_Toc81154545)

[b. Multiplication and Division by POSITIVE number (Sign DOES NOT CHANGE) 2](#_Toc81154546)

[c. Multiplication and Division by NEGATIVE number (Sign CHANGES) 2](#_Toc81154547)

[4. Exercise – Solve the inequalities 3](#_Toc81154548)

[5. Solve 2 or more inequalities equation (use number lines to visualize) 3](#_Toc81154549)

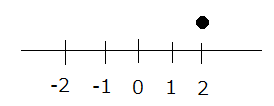
[6. Exercise – Solve 2 or more inequalities equation (use number lines to visualize) 3](#_Toc81154550)

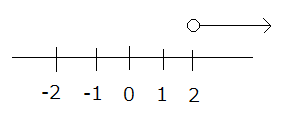
[7. Exercise – Solve quadratic inequalities (use number lines and draw graph to visualize) 4](#_Toc81154551)

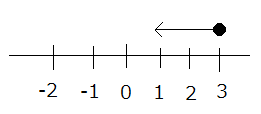
## Why learn?

* Inequalities are used to represent a range of values
* Number of lines are used to illustrate and solve inequalities

## Examples







## Properties

### Addition and Subtraction

### Multiplication and Division by POSITIVE number (Sign DOES NOT CHANGE)

### Multiplication and Division by NEGATIVE number (Sign CHANGES)

## Exercise – Solve the inequalities

|  |  |
| --- | --- |
| 1 |  |
| 2 |  |
| 3 |  |

## Solve 2 or more inequalities equation (use number lines to visualize)

|  |  |
| --- | --- |
| Case 1 |  |
| Case 2 |  |
| Case 3 |  |
| Case 4 |  |

## Exercise – Solve 2 or more inequalities equation (use number lines to visualize)

|  |  |
| --- | --- |
| 1 |  |
| 2 |  |

## Exercise – Solve quadratic inequalities (use number lines and draw graph to visualize)

|  |  |
| --- | --- |
| 1 |  |
| 2 |  |
| 3 |  |
| 4 |  |
| 5 |  |