

User guide for </>'s problem set solver

This project is one that aims to simplify the process of doing math exercises. Below is a guide that details how to operate the solver to achieve the desired results. If a section does not have a use guide, it is likely not done.

- **0. polar coordinates and vectors**

- **0.0. rectangular to polar**

- How to use:
 - type X or R value, hit `Enter`, type Y or U value, hit `Enter`
 - Example: $5U - 3R$
 - type 5, hit `Enter`, type -3, hit `Enter`

- **0.1. polar to rectangular**

- How to use:
 - type radius value, hit `Enter`, type θ value, hit `Enter`
 - Example: $5\angle 300^\circ$
 - type 5, hit `Enter`, type 300, hit `Enter`

- **0.2. vector addition**

- How to use:
 - type first radius value, hit `Enter`, type first θ value, hit `Enter`
 - repeat for second set of values
 - Example: $5\angle 300^\circ + 6\angle 240^\circ$
 - type 5, hit `Enter`, type 300, hit `Enter`
 - type 6, hit `Enter`, type 240, hit `Enter`

- **1. rectangular coordinates and points**

- **1.0. distance between two points**

- How to use:
 - type first point as ordered pair, hit `Enter`, type second point as ordered pair, hit `Enter`
 - Example: distance between (0, 1) and (6, 4)
 - type 0,1, hit `Enter`, type 6,4, hit `Enter`

- **1.1. equation of a line through two points**

- **1.2. equation of a line through a point and perpendicular to another line**

- **2. variations**

- **2.0. direct variation**

- **2.1. indirect variation**

- **3. abstract equations**

- **3.0. find variable**

- **3.1. simplify fractional equation**

- **4. roots**

- **4.0. roots in roots**

- **4.1. roots in denominators**

- **5. multi-equational problems / substitution**

- **5.0. 2 simultaneous equations**

- **5.1. advanced substitution**

- 6. volume concentration problems

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- 7. Combined gas law problems

- 7.0. Regular

- 7.1. Constant Pressure

- 7.2. Constant Volume

- 7.3. Constant Temperature

- 8. 30-60-90 triangles

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- 9. linear regression

- 9.0. $y = mx + b$