Program explanation

Main interface:

You can use this program, if you want to transform from Delta to Y and vice versa.

This is a simple explanation of how to use the program :

When you open the program, this interface will appear to you.

You have three choices:

Left button : if you want to transform from Delta to Y.

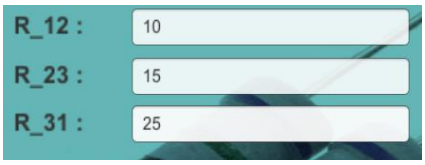
Right button : if you want to transform from Y to Delta.

Quit button : if you want to leave the program at anytime.

……

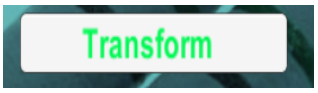
Delta to Star interface:

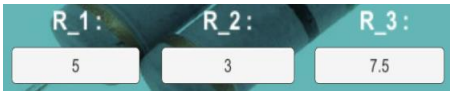
Once you click on left button (Delta to Star), you will move to another interface.



Now you can enter the values of the three resistances R_12 , R_23 and R_31 in Delta form, then you click on transform button.

Immediately, the values of the three resistances in Y form will appear on the screen below transform button as you see in the pictures.



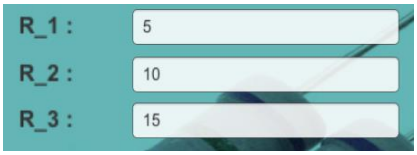


if you want to make another transformation you don't need to go back and click on (Delta to Star button again) but you can enter the new values of the three resistances in Delta form and click on transform button and you will show the new values of the three resistances in Star form.

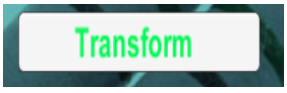
……..

Star to Delta interface:

On the other hand, if you click on right button (Star to Delta), you will move to another interface that looks like Delta to Star interface.

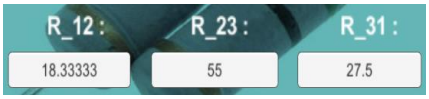


Firstly, you will enter the values of the three resistances R_1 , R_2 and R_3 in Star form, then click on transform button.



Name: Karim Mahmoud Kamal Mohamed Sec: 2 B.N: 10

Once you click on this button, you will see the new values of the three resistances in Delta form as you see in the pictures.

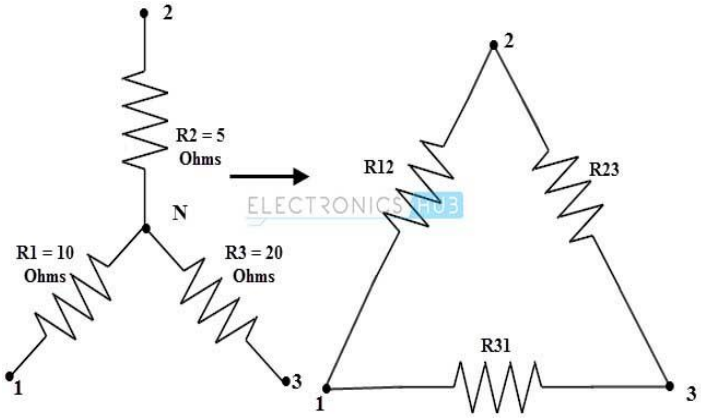


if you want to make another transformation you can easily follow the last step in Delta to Star transformation.

……

Note:

This picture explains how you can enter the values of the resistances in the right form to get the right results and these are the relations used to transform from each form to another.



Delta to Star:

```
R_1 = R12 * R31 / (R12 + R23 + R31)
```

```
R_2 = R12 * R23 / (R12 + R23 + R31)
```

```
R_3 = R23 * R31 / (R12 + R23 + R31)
```

Star to Delta:

```
R_1 = (R12 + R23) + (R12 * R23 / R31)
```

```
R_2 = (R31 + R23) + (R31 * R23 / R12)
```

```
R_3 = (R31 + R12) + (R31 * R12 / R23)
```


Name: Karim Mahmoud Kamal Mohamed Sec: 2 B.N: 10