Circuit Notes
[What is a Circuit?](https://www.youtube.com/watch?v=VnnpLaKsqGU)

What is a circuit? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

What is a closed circuit? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

What is a short circuit? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

[Types of Electrical Circuits:](https://www.youtube.com/watch?v=RQ3djos_LY8)

What is a series circuit? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

What is a parallel circuit? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

[Solving for a Series circuit:](https://www.youtube.com/watch?v=LECvF5VCz1w&t=55s)

Rules when solving for Series circuits:

Resistance: Add up all of the resistors. RT = R1 + R2 + R3…

Current: Current stays the same at each resistor IT = I1 = I2 = I3…

Voltage: Add up to get total voltage ΔVT =ΔV1+ ΔV2 + ΔV3…

Ohm’s Law is V=IR



Be able to fill in chart and solve for each missing piece of the circuit:

Given information in diagram is in GREEN

|  |  |  |
| --- | --- | --- |
| RT=  | IT=  | VT= 60 V |
| R1= 17 Ω | I1=  | V1=  |
| R2= 12 Ω | I2=  | V2=  |
| R3= 11 Ω | I3=  | V3= |

To solve for RT, add 17 Ω +12 Ω +11 Ω = \_\_\_\_\_\_

To solve for total current:

V=IR
60V = I (40 Ω)
I = \_\_\_\_\_\_

In a series circuit, current is the same at each location.

To solve for Voltage drop at each resistor:

To solve for voltage drop at resistor 1:

V1 = I1R1

V1 = (1.5A)(17 Ω)

V1 = \_\_\_\_\_\_

To solve for voltage drop at resistor 2:

V2 = I2R2

V2 = (1.5A)(12 Ω)

V2 = \_\_\_\_\_\_

To solve for voltage drop at resistor 3:

V3 = I3R3

V3 = (1.5A)(12 Ω)

V3 = \_\_\_\_\_\_