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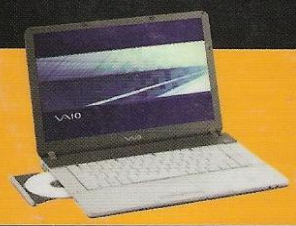

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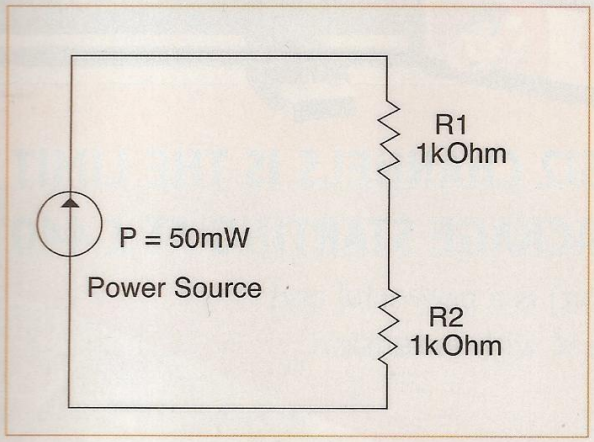
Power Divider Rule

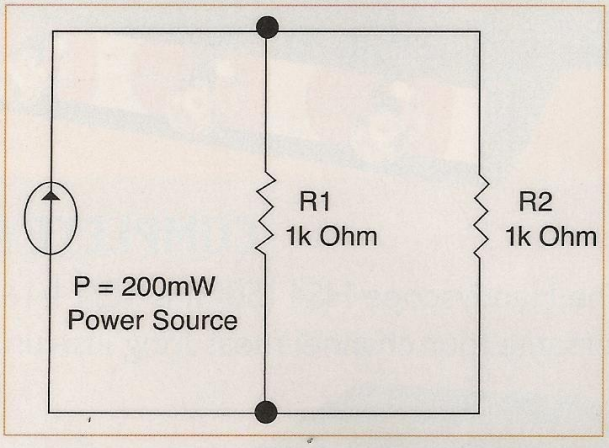
Generally, the Electrical Engineering studies have current and voltage divider formulae for circuit analysis and, also, some general formulae for power. But there is no specific formula for power such as current divider or voltage divider rule. This thought helped me to come up with the 'Power Divider Rule', which stipulates that: "The total dissipated power is equal to the total supplied power regardless of circuit configuration."

On the other hand, Norton and Thevenin had their own way to measure the amount of current flow through any resistor. Although their way is different, their intention is the same. Hence, I came up with my way of finding the amount of power in any circuits.

It should be noted that the total power used by either circuit is the sum of its individual resistors' powers. Therefore, it is clearly proved that: "The total dissipated power is equal to the total supplied power regardless of circuit configuration."

Nachimani Charde
Malaysia





Series circuit analysis:

1) Power across Resistor 1

$$PR1 = \frac{P * R1}{R1 + R2} = \frac{50m * 1k}{1k + 1k} = 25mW$$

2) Power across Resistor 2

$$PR2 = \frac{P * R2}{R1 + R2} = \frac{50m * 1k}{1k + 1k} = 25mW$$

3) Total Power: $P = P_{R1} + P_{R2}$

$= 25mW + 25mW$

$= 50mW$

Parallel circuit analysis:

1) Power across Resistor 1

$$PR1 = \frac{P * R1}{R1 + R2} = \frac{200m * 1k}{1k + 1k} = 100mW$$

2) Power across Resistor 2

$$PR2 = \frac{P * R2}{R1 + R2} = \frac{200m * 1k}{1k + 1k} = 100mW$$

3) Total Power: $P = P_{R1} + P_{R2}$

$=100mW + 100mW$

$= 200mW$