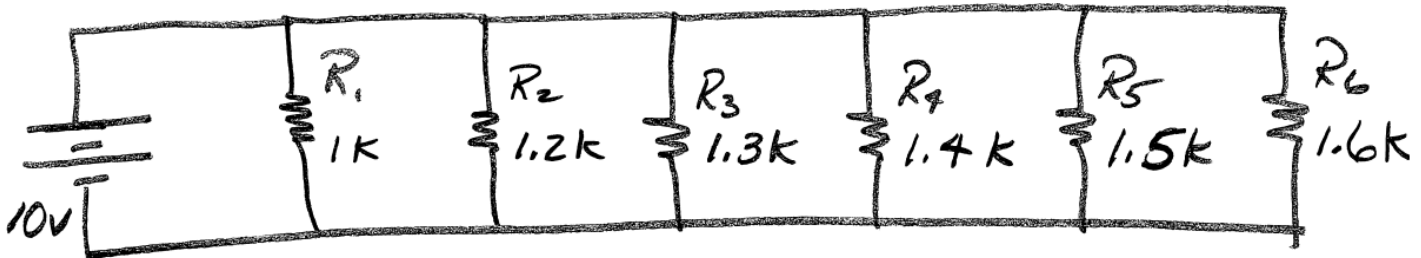




## Basic Electricity – Unit 6: Other Basic Circuit Fundamentals

### Homework 1

Instructions: Solve the following circuit:

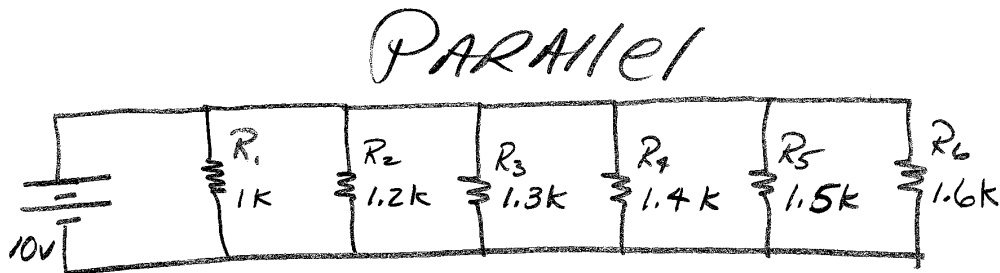




## Basic Electricity – Unit 6: Other Basic Circuit Fundamentals

### Homework 1

Solution:



$$R_T = 216.9895678 \Omega$$

$$V_T = 10V$$

$$I_T = .046085164 A = 46.085 \text{ mA} \quad \text{Rounded off}$$

Resistor	Resistance	Voltage	Current	Power
$R_1$	$1k \Omega$	$V_1 = 10V$	$I_1 = .01 A$	$P_1 = .1 W$
$R_2$	$1.2k$	$V_2 = 10V$	$I_2 = .008333333 A$	$P_2 = .08333333 W$
$R_3$	$1.3k$	$V_3 = 10V$	$I_3 = .007692307 A$	$P_3 = .07692307 W$
$R_4$	$1.4k$	$V_4 = 10V$	$I_4 = .007142857 A$	$P_4 = .07142857 W$
$R_5$	$1.5k$	$V_5 = 10V$	$I_5 = .006666666 A$	$P_5 = .06666666 W$
$R_6$	$1.6k$	$V_6 = 10V$	$I_6 = .00625 A$	$P_6 = .0625 W$

$I_1 + I_2 + I_3 + I_4 + I_5 + I_6 = I_T$   
 $P_1 + P_2 + P_3 + P_4 + P_5 + P_6 = P_T$





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## **Basic Electricity – Unit 6: Other Basic Circuit Fundamentals**

### *Homework 1*

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