* **Implement the following circuit on the bread board.(V1=10V)**

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1. Based upon the circuit above, find the following parameters experimentally.

|  |  |  |  |
| --- | --- | --- | --- |
| Parameter | Vth | $$I\_{N}$$ | Rth |
| Measured Value |  |  |  |
| Theoretical Value |  |  |  |

1. Use the potentiometer as a load then fill the table below.

|  |  |  |
| --- | --- | --- |
| $R\_{L}$ (KΩ) | $$V\_{L}$$ | $P\_{L}$ (mW) |
| 3KΩ |  |  |
| 6 KΩ |  |  |
| 9 KΩ |  |  |

1. Draw the power consumed by the load $( P\_{L}$ ) against $R\_{L}$ .
2. Draw the Thevenin equivalent circuit.
3. Draw the Norton equivalent circuit.
4. Determine which resistor consumes the largest power from the second table.
5. Is this formula $P\_{max}= \frac{V\_{th}^{2}}{4R\_{th}}$ verified the maximum power calculated from your measurements? If yes, prove that.