

## Quiz #8

Name: \_\_\_\_\_

1. [3] A certain cylindrical rod has a diameter of 4mm, a length of 12 mm, and a resistance of  $5000 \Omega$ . What is the resistivity of the material from which this rod was made?
2. [2] Three resistors are connected in series. Their resistances are ( $400 \Omega$ ), ( $500 \Omega$ ), and ( $600 \Omega$ ). What is the resistance of the whole group?
3. [2] Three resistors are connected in parallel. Their resistances are ( $400 \Omega$ ), ( $500 \Omega$ ), and ( $600 \Omega$ ). What is the resistance of the whole group?

4. [3] We've seen this before!

For the circuit shown, you know that:  $\longrightarrow$   
Determine the voltage of the power supply ( $V_A - V_C$ ).

$R_1 = 300 \Omega$
$R_2 = 500 \Omega$
$R_3 = 1000 \Omega$
$I_3 = 32.0 \text{ mA}$

