PHYS 212L Post-Lab work for Lab 5(Resistance) Due on WP 2/21 Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

olandr2

1. A conducting wire has a 1.3 mm diameter, a 1.7 m length, and a 70 mΩ resistance. What is the resistivity of the material?

2. A certain wire has a resistance of 110 Ω. What is the resistance of a second wire, made of the same material, that is 1/3 as long and has 1/2 the diameter?

Watch the following videos: <http://www.youtube.com/watch?v=QZieGLO9_ks> and  
[Physics Demonstration: Pickle glow](javascript:xlinkobject('c26-sec1-physics-0001','nopolice');)  
  
3. How do you know that the pickle glow does not come from heating like an incandescent light bulb?

4. Would the glow be the same color if the salt (sodium chloride) in the pickle were replaced with potassium chloride?

5. How does the glow of the pickle differ from the light emitted from a light bulb?

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