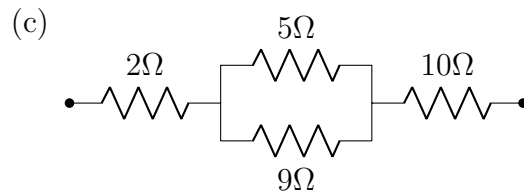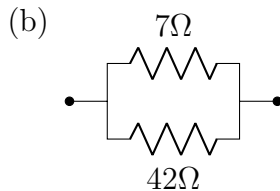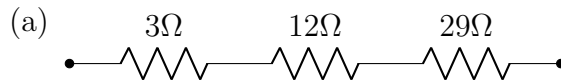Quiz

1. Write the three variations of Ohm's law.

2. Write the three variations of the power equation.

3. Write Power in terms of I and R.

4. Find the total resistance of the following:

   (a)   3Ω   12Ω   29Ω
        —⟋⟍⟋⟍—⟋⟍⟋⟍—⟋⟍⟋⟍—

   (b)   7Ω
           —⟋⟍⟋⟍—
        —⊏   ⊐—
           —⟋⟍⟋⟍—
           42Ω

   (c)   5Ω
          2Ω   —⟋⟍⟋⟍—   10Ω
       —⟋⟍⟋⟍—⊏   ⊐—⟋⟍⟋⟍—
                —⟋⟍⟋⟍—
                  9Ω

5. In the previous problem define each of the given circuits (series, parallel, or series-parallel).

6. What is the formula for calculating total resistance of four resistors in parallel?

7. What is the formula for calculating total resistance of three resistors in series?

8. (a) What is the voltage commonly supplied to residential buildings?
   (b) What voltage is it stepped down to?
   (c) What component steps down the voltage?

9. What is measured by placing a meter across a load?

10. Why should you make sure the circuit is turned off when checking resistance with an ohmmeter?