

# Homework 2: Equivalent Resistance and Division

## Introduction

The problems for this assignment focus on equivalent resistances, voltage division, and current division.

## Problems

### Connect

- (1) A&S 2.26.
- (2) A&S 2.29.
- (3) A&S 2.31.
- (4) A&S 2.33. Remember that  $1 \text{ S} = 1 \text{ } \Omega^{-1}$ .
- (5) A&S 2.35.
- (6) A&S 2.54.
- (7) A&S 2.56.
- (8) A&S 2.75. *Carefully* read Section 2.7 first!
- (9) A&S 2.78.
- (10) A&S 2.82.

### Sakai

- (1) A&S 2.74.
- (2) A&S 2.79. The goal is to determine  $R_x$  such that the sharpener gets exactly 240 mW of power delivered to it. In addition to what is asked in the problem, also calculate the power delivered by the 9 V source and the power absorbed by  $R_x$ .