Supplementary Problems (S-):

12. You are given three resistors: 3 Ω, 6 Ω, and 12 Ω. (a) Draw a diagram showing how to connect the resistors so that you get the smallest effective resistance, and calculate that effective resistance. (b) Is your connection above purely parallel, purely series, or a combination? (c) Draw a second diagram showing how to connect the resistors so that you get the largest effective resistance, and calculate that effective resistance. (d) Draw a third diagram showing how to connect the resistors so that you get some value between 6 Ω and 12 Ω for the effective resistance, and calculate that effective resistance.

Answers to Supplementary Problems:

12. a) R_{eff} = 1.714 Ω; b) purely parallel; c) R_{eff} = 21 Ω .