

Homework Assignment #2 – Circuit Elements

Reading Assignment:

Chapter 2 in **Electric Circuits, 8th Ed.** by Nilsson (omit section 3.5)

Problem Assignment:

Note: Be sure to follow the required PROBLEM FORMAT for every assignment in this course.

Chapter 2 # 1, 3, 9, 12, 20, 22, 23, 26, 28

Selected Answers:

- 2.1) Error on schematic in text. Current source should have value 8 A, not 8 V
- 2.2) Valid. $P_{10A} = 1000$ W delivered, $P_{5A} = 700$ W delivered
- 2.4) Valid. $\Sigma P_{del} = 300$ W
- 2.9) Valid. $\Sigma P_{del} = 2240$ W
- 2.12) 25Ω
- 2.20) a) $i_o = 8$ mA b) $i_g = 10$ mA c) 160 mW
- 2.22) a) 7Ω b) 1000 W
- 2.23) a) 15Ω b) 1440 W
- 2.25) a) $i_g = -9$ A c) $v_g = 152$ V d) $\Sigma P_{ig} = 1368$ W
- 2.26) $P_{130V} = 1950$ W delivered, $P_{460V} = 13800$ W delivered