Homework 6: Sinusoids and Phasors

Introduction

The problems for this week focus on sinusoids and phasors.

Problems

Connect

- (1) A&S 9.1.
- (2) A&S 9.2.
- (3) A&S 9.3.
- (4) A&S 9.30.
- (5) A&S 9.34.
- (6) A&S 9.37.
- (7) A&S 9.40.
- (8) A&S 9.41.
- (9) A&S 9.46.
- (10) A&S 9.56.
- (11) A&S 9.66.
- (12) A&S 9.87.

Sakai

None

On your own: Basic Phasors

Learn how to do problems like these relatively quickly - probably with the aid of a calculator. Also note that all the problems are odd so the answers are in the back of the book / linked to the problem in the eBook.¹

- A&S 9.17.
- A&S 9.19.
- A&S 9.21.
- A&S 9.23.
- A&S 9.25. Really you are looking for the AC Steady State behavior. Keep in mind the derivative property of phasors, from that extrapolate the integral property of phasors, and note that you know the frequency in these example.

 $^{^1\}mathrm{You}$ knew the odd answers were there, right?