

Review for First Exam

The first exam will cover sections 11.1, 11.2, 11.3, and 11.4 of the text. Here is a list of the topics from these sections to review for the exam. (There will be no questions on this test asking for definitions or theorems; the problems will all be similar to homework problems.)

- 11.1** We covered pages 657 – 659 of this section, along with Example 7 on pages 660-661.
- 11.2** We covered the entire section. The key formulas are number (2) on page 666 for slopes and the one at the top of page 667 for the second derivative, the formula for area just before Example 3, and formula (4) for arc length on page 669.
- 11.3** We covered all the section, except (as in Section 11.1) you can skip the part about graphing polar curves with graphing devices — calculators aren't allowed on the exam anyway. Figure 5 on p. 676 should of course be memorized, from it you can immediately get equations 1 and 2 in the red boxes on pages 676 and 677. Formula (3) on page 680 is for slopes of tangents to polar curves, but rather than memorizing this formula, just proceed as in the Note at the top of page 682.
- 11.4** We covered the entire section. The key formulas are numbers (3) for area and (5) for arc length.