

# MATH 110-003-004 200730 Study Guide for Midterm Test 2

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Below is a list of sections from the textbook and problems from which I will select problems for Midterm Test 2.

In general, you do not need to study or memorize proofs (although if you are planning to major in mathematics it would be a good idea). You should concentrate on getting the correct result in calculations; you should know how to use theorems rather than what they are called or what number they are given in the textbook. I will know what theorem you are using in a calculation if you use it correctly.

I made an error during the lecture: Section 3.4 will be on the test. You may need to know how to take derivatives of trig functions, of course, and how to apply the basic trig limit  $\lim_{\theta \rightarrow 0} \frac{\sin \theta}{\theta} = 1$ .

- **Section 3.4.**

- C-level: 1–34, 39–46
- B-level: 35–38, 47–49
- A-level: 50–51

- **Section 3.5.**

- C-level: 1–71
- B-level: 72–80, 87
- A-level: 83–86, 88–90

- **Section 3.6.**

- C-level: 1–36
- B-level: 39–44, 49–50
- A-level: 45–48, 51–53

- **Section 3.7.**

- C-level: 1–10, 17–18, 22, 27–29
- B-level: 11–16, 19–21, 25–26, 30–31
- A-level: 32–33

- **Section 3.8.**

- C-level: 1–25

- B-level: 26–34
- A-level: 35–44

- **Section 3.9.**

- C-level: 1–36
- B-level: 37–38
- A-level: 39–42

- **Section 4.1.**

- C-level: 1–56
- B-level: 57–65, 67–68
- A-level: 69–70, 72

- **Section 4.2.**

- C-level: 1–20, 23–25, 27, 29, 32–33
- B-level: 30–31
- A-level: 21–22, 26, 28, 34

- **Section 4.3.**

- C-level: 1–40, 49
- B-level: 41–46, 50–54, 59–60
- A-level: 55–58, 61–67

- **Section 4.4.**

- C-level: 1–4, 7–38, 40–54, 60
- B-level: 55, 58–59
- A-level: 56–57

We will not be studying the “Precise Definitions” subsection at the end of section 4.4.

- **Section 4.7.**

- C-level: 1–58
- B-level: 59–68
- A-level: 69–72

Altogether that is a lot of material, but if you have been keeping up with the problem sets there should be nothing new to you in that list.