MATE 3000 practice problems

Set 1
§1.1: exercises 1–4, 9–12, 37–40, 43–46, 47, 55, 57–60 pp.52–55.

Set 2
§1.2: exercises 18, 19, 23, 31, 32, 51, 65–80 pp.71–77. To hand in: all.

Set 3 (chapter 2 of the sixth edition corresponds to ch 5 of the fifth edition)
§1.3: hand in five of exercises 79, 81, 83, 89, 96, 104, 109, and four of 111–132.
§2.1: hand in four of exercises 14, 15, 18, 20, 25, 29, 32, 34, 37, 39, at least three numbered 25 or higher. Hand in three of exercises 43–48, including 48.

Set 4
§2.2: hand in exercises 23, 25, 32, 37, 41, 43, 53, 58, 59 and six of exercises 67–78.

Set 5 (practice)
§2.3: exercises 41, 44, 46, 48, 52, 55, 58, 59, 60, 61–66.
§3.1: exercises 27, 31, 40, 42, 48, 50, 53, 55–68.

Set 6
§3.2: (hand in) exercises 16, 26, 30, 33, 37, 40, ten of 51–68.

Set 7
§3.3: hand in four of 2, 12, 14, 19, 27, 31, 45, and four of 49–58.
§4.1: four of 39, 44, 45–48, 51, and four of 53–65.
§4.2: four of 55, 60, 64, 70–74, and four of 77–86.

Set 8
§4.3: four of 7–26, exercises 53, 61, 62, and five of 67–78 (total of 12 exercises). Solve pb 53 by matrix inversion (same constraints, different right-hand sides).
§5.1: hand in four of 15–26, three of 34, 35, 40, 42, 44, and: two of 45–50, two of 51–54, two of 55–58.

Set 9
§5.2: exercises 1–20: 3, 8, 11, 18. Exercises 22–44: hand in two even-numbered exercises, one corresponding to a bounded region, one corresponding to an unbounded region. 45–58: solve all, and hand in four even-numbered exercises.
§5.3: exercises 1–14: 1, 3, 6, 13. Exercises 21–40: one odd-numbered and one even-numbered exercise. 45–54: solve all, hand in four even-numbered exercises.

Set 10
§5.4: exercises 1–18: 3, 8, 12, 15. Exercises 25–46: choose one odd-numbered, two even-numbered. 49–58: hand in the even-numbered ones.

Set 11
§6.1: exercises 1–68: a total of 12 problems, at least eight even-numbered, and at least one from each of the seven groups. 71–84: hand in all even-numbered problems.
§6.2: exercises 32, 44, 53, 56. 59–70: all even-numbered problems.
§6.3: exercises 18, 22, 40, 43, 44, 46, 54, 64. 65–70: even-numbered exercises.

Set 12

§6.4: counting is a skill requiring arduous practice. Do, on your own, at least twenty of exercises 1–52. Hand in: 54, 58, 61, 63, 64, 66, 67, 71, 75, 76. 77–86: all even-numbered problems.

§7.1: 46, 48, 54, 60, 66, 68, 72, 74. Even-numbered exercises from the 75–86 sequence.

Set 13

§7.2: 25, 44, 45, 47, 50, 52. Even-numbered exercises from the Communication and reasoning exercises.

§7.3: solve, on your own, at least ten of 1–46. Hand in: 54, 56, 65, 81, 88, 89. Hand in five even-numbered exercises of the sequence 91–104.

§7.4: 10, 21, 24, 38, 44, 46, 48, 50. Do at least as many on your own.

Set 14

§7.5: 55–58, 81, 82, 87–90, 91, 92, 97–108.

§7.6: 21, 22, 27, 29, 30, 33, 34, 37–44.