

## MATH 241 - Spring 2025

section 12.1, page 713:	1, 5, 9, 13, 15, 19, 23, 35b, 39, 43, 45, 53, 57, 65, 67, 69.
section 12.2, page 723:	9, 17, 23a, 25, 31d, 33, 35.
section 12.3, page 732:	1abd, 19.
section 12.4, page 739:	1, 9, 15, 35, 41.
section 12.5, page 747:	1, 3, 15, 21, 23, 25, 29, 33, 39, 45, 53, 57. When you do problem 33 in 12.5, find the point on the line which is closest to the given point. When you do problem 35 in 12.5, find the point on the plane which is closest to the given point.
section 12.6, page 744:	1–12, The following problems refer to problems that were given on old exams. These exams may be found elsewhere on the website. In the Fall of 2017, I taught a section of the course at 11:40 and a section at 1:15; so “F17-E3-1:15-1” refers to problem 1 on the third exam from the 1:15 section in Fall 2017. F19-E2-3; Sp19-E2-2; F18-E2-1; F17-E2-11:40-3; F17-E2-1:15-4; F18-E3-3; F17-E3-11:40-1; F17-E3-1:15-1
section 13.1, page 767:	5, 7, 9, 13, 23, 37 be, 39.
section 13.2, page 774:	1, 9, 11, 17, 21, 23, 24, 32.
section 13.3, page 781:	1, 9, 11, 15. You need only find the arc length in each problem.
section 14.1, page 808:	1c, 5, 15, 18, 39, 47, 49, 53, 61.
section 14.2, page 816:	1, 13, 33, 41, 43.
section 14.3, page 828:	1, 7, 19, 27, 35, 41, 55.
section 14.4, page 838:	1, 7, 37.

section 14.5, page 849: 6, 9, 11, 19, 25.

section 14.6, page 857: 1, 11, 15.

section 14.7, page 867: 1, 7, 13, 21, 31, 33, F20-e3-4, F20-e3-5, S19-e3-4, F18-e3-1, F18-e3-2, F17-e3-11:40-4.

section 14.8, page 876: 1, 5, 9, 12, 23.

section 15.1, page 898: 1, 17, 25, 30.

section 15.2, page 905: 1, 9, 23, 33, 35, 37, 41, 45, 49, 53, 60, 65, 69.

section 15.3, page 910: 3, 10, 13, 17.

section 15.4, page 916: 5, 9, 21, 23, 25.

section 15.5, page 926: 9, 19, 23, 25, 33, 35, 41.

section 15.7, page 946: 23, 31, 37, 39, 77, 79.

section 15.8, page 958: 1, 3, 6, 7, 12, 18, 19.

section 16.1, page 970: 1–9, 11, 13, 19, 21, 23.

section 16.2, page 982: 7, 11, 15, 17ab, 19, 21, 23, 27.

section 16.3, page 994: 1, 3, 7, 9, 13, 15, 19, 21, 25, 27, 29.