

# MAC1140 Summer B 2017 : Section 4760

## Suggested Book HW Problems

You should read the textbook sections covered in each days lecture before class. After each lecture, review your notes and the text to make sure you understand the main ideas prior to working the exercises.

If you have questions about the reading or homework exercises, you may ask your instructor during office hours.

You should complete as much of each assignment as you can before your next lecture class, since the material in each new lecture builds on previous concepts.

Lecture	Section	Page	Problems
L1	A.1	A11	7-39 odd, 51-54, 73-76
L2	A.2	A23	9-30 odd, 41-52, 55-58, 69-78 odd
L3	A.3	A33	27- 43 odd, 49-52, 53-61 odd, 71-75 odd, 83, 85, 86, 89, 90, 91-94 Factor completely: $(x^2 + 8)^2 - 36x^2$ Factor completely: $7(3x + 2)^2(1 - x)^2 + (3x + 2)(1 - x)^3$ Factor completely: $3(x - 2)^2(x^6 + 1)^4 + 4(x - 2)^3(x^6 + 1)^3$
L4	A.4	A42	5-27 odd, 28, 29, 30, 33-38 odd, 39-45, 50, 51, 53, 54, 56-59, 61-65
L5	A.5	A56	5 - 11 odd, 15-19 odd, 20-24, 25-32, 39, 41, 43-49 odd, 53, 55, 74, 75, 78-80, 83, 84, 86, 89, 90,97-99
L6	A.6	A64	13-23 odd, 43-58, 75-79 odd, 83-90, 101, 102, 107, 115-117
L7	1.1	8	9- 13 odd, 17-20, 25, 29-32, 55-57
	1.2	19	7-14, 19-22 odd, 23-32, 33, 35, 36, 40, 45, 47, 53, 69-76, 77, 79
L8	1.3	31	15-21odd, 25-30, 35, 43-51, 55-58, 65, 70, 73, 74, 77, 78, 91, 92, 93, 96, 99
	1.4	44	11-17 odd, 21-26, 37-44, 45, 47, 49, 53, 55, 58, 59, 61(c) , 63, 64, 67, 68, 71, 72
L9	1.5	56	11, 13, 17, 19, 20, 23, 24, 31-37 odd, 61, 63, 64, 71-73, 83, 88 (a) Find the average rate of change of: $f(x) = x^2 + 3x$ from 2 to 4 $f(x) = x^2 + 3x$ from 2 to $x$ $f(x) = \frac{x-1}{x}$ from 1 to 3 $f(x) = \frac{x-1}{x}$ from 1 to $x$
L10	1.6	-	Plot $f(x) = x^2$ , $f(x) = x^3$ , $f(x) = \sqrt{x}$ , $f(x) = \begin{cases} x, & x < 0 \\ 3, & x = 0 \\ \frac{1}{x}, & x > 0 \end{cases}$
	1.7	72	11-14, 19, 21-24, 31, 35, 43, 44, 47-49 odd, 56-58 Suppose the point (1, 1) is on the graph of $f(x)$ . Find the corresponding point on $2f(x - 1) + 6$ .
L11	1.8	81	5 - 12, 13-21 odd, 31-34 odd, 35-42, 47, 48, 55, 57, 59, 60, 65, 66
L12	1.9	90	7-11 odd, 17-19, 35, 37-40, 45-55 odd, 57-64, 73, 74, 77, 93, 95 96 If $f(x)$ is one-to-one, $g(x)$ is odd, $g(3) = 7$ and $f(-3) = 1$ . What is $(g \circ f^{-1})(1)$ ?
L13	2.1	120	7- 12, 14, 15, 17-22, 43-46, 47-51 odd, 65, 71, 73, 75, 76, 77, 78, 81 (a)(d), 83, 84

Lecture	Section	Page	Problems
L14	2.2	133	9-14, 19-30, 35-43 odd, 44 -49, 55-61 odd, 67, 73, 97(a)(b), 98 (a)(b), 99(a)(b)(c), 105-111
L14	2.3	144	11-17 odd, 18-22, 27-35odd, 40, 44, 47, 49, 55, 56, 59, 60, 63, 67, 68, 69
L15	2.4	152	7-27 odd, 33-41 odd, 43, 45, 49, 51-57 odd, 61, 65, 71, 91, 93-96 Rewrite the following as 1, $i$ , $-1$ or $-i$ : $i^{87}$ , $i^{236}$ , $\frac{1}{i^7}$ , $i^{23}$ Show $\sqrt{-3}\sqrt{-3} + i^{404} - i^{222} + i^{-16} = 0$
L16	2.5	164	9-14, 19, 21, 26, 30, 47, 55, 57, 59, 60
L16,17	2.6	177	9-35 odd, 36-40, 41-44, 73 (a)(b), 78
L18	2.7	180	13-33 odd, 36, 39, 52, 63, 64, 73, 75, 77
L19	7.1	473	15-23 odd, 29, 31, 49, 50, 51, 13-27 odd, 35-40, 41, 42, 43, 49 (a)(c), 50 (a)(c), 51
L20	3.1	208	13-16, 23-26, 27, 29, 39-41 odd (graph by hand), 55, 57, 59, 64, 67(c), 68, 70 (a)(b), 72
L21	3.2	218	11-20, 25-28, 29 - 35 odd, 37-40, 41-43 odd, 61-64 82
L22	3.3	225	7-57 odd, 67-82 odd, 85-88, 107
L23	3.4	235	7-13 odd, 17-38, 45-62
L24	35.	245	7-11 odd, 21, 23, 25, 30, 32, 33, 35, 37, 38, 42 (a) (c)