Sample Problems - 8th Edition Problem List

The following are practice problems taken from the course textbook (unless otherwise stated). These have been chosen to help you practice your skills and prepare for the tests. It is strongly recommended that you do these problems as the course progresses, as it is very easy to fall behind in this material.

- Section 7.5
3,7,11,45,73

- Section 7.8
14[ans. 1-1/e],17,24[ans. 1],29,31,32[ans. Pi/2] ,37,53,57,58[ans. p>1, 1/(p-1)]

- Chap. 7 Review
7, 11, 15, 45

- Appendix E
38,41,47(*use induction*)

- Section 11.1
9, 15, 17, 29, 33, 35, 39, 41, 49, 73, 77, 80 [b) ans. 2], 81

- Section 11.2
15, 17, 19, 23, 25, 37, 42[ans. diverge], 45, 47, 57, 59, 67

- Section 11.3
23, 24[ans. converge], 29, 37(a,c,d), 40[ans. $n>e^{100}$]

- Section 11.4
3, 5, 7, 9, 13, 15, 21, 25

- Section 11.5
3-13(*odd only*) 23, 25

- Section 11.6
3, 5,9, 23, 25, 29, 31,43

- Section 11.7
1, 7, 13, 19, 21

- Section 11.8
3, 5, 11, 15, 17, 23, 27, 29, 30[ans. a) conv. b) div. c) conv. d) div.]

- Section 11.9
5, 7, 9, 13, 15, 25, 40[ans. a) $1/(1-x)^2$,b) $x/(1-x)^2$, 2, c) $2x^2/(1-x)^3$, 4, 2]

- Section 11.10
11, 13, 15, 23, 31, 47, 53, 55, 73

- Section 11.11
9, 15, 25, 27

- Section 8.2
1(a),9,12,13,15,16[ans. 6Pi/5],27

- Section 8.3
1, 3, 5, 9, 13, 15

- Section 9.1
3, 4[a) ans. ±5/2], 9, 11, 13, 15

- Section 9.3

9, 15, 19, 20[ans. $1+\exp(x^2/2)$], 29, 39, 45

- Section 3.8

3, 9, 11, 14[ans. y=5*exp(2x)], 17

- Section 9.5

7-15(*odd only*), 29, 33

- Section 10.1

1, 3, 7, 11, 15, 19, 24 [ans. a)III b)I c)IV d)II], 25

- Section 10.2

7, 11, 19, 33, 41, 43, 51, 61

- Section 10.3

3, 5, 7, 11, 17, 19, 21, 25, 29, 31, 37, 54 [ans. a)VI b)III c)II d)IV e)V f)I], 63

- Section 14.1

9, 11, 13, 15, 19, 23-31(*odd only*), 32 [ans.a)III b)I c)IV d)V e)VI f)II], 45, 47, 49, 53, 61 [ans. C II],62 [ans. A IV],63 [ans. F I], 64 [ans. E III],65 [ans. B VI],66 [ans. D V]

- Section 14.2

5-17 (*odd only*), 29, 31, 33, 37

- Section 14.3

5, 6, 7, 10[ans. $f_x(2,1)\sim+3, f_y(2,1)\sim-2$], 11, 15-35,(*odd only*), 47, 49, 51, 53, 59, 65, 67, 75, 77, 81

- Section 14.4

1, 3, 5, 11, 13, 19, 21, 27, 31, 33

- Section 14.5

3-13(*odd only*), 14, 23, 25, 27, 29, 35, 49, 51

- Section 14.6

15, 19, 21, 29, 31, 33, 39

- Section 15.1

1,3,7,9,11,15, 17, 19, 21, 32, 33, 37, 39, 47

- Section 15.2

7, 9, 11, 15, 22, 23, 45-53(*odd only*), 61
