

1. Text: **James Stewart**, *Calculus, Early Transcendentals*, 8th Edition, Cengage learning.
2. Math 1042 ADDITIONAL Homework Problems

You are expected to solve **ALL** the problems listed here and **write out** your solutions. The problems whose numbers are not boxed you will also need to do on WebAssign (where they may be slightly modified).

Chapter 5: Integrals

- 5.1: 2, 3, **4**, 5, 13, **14**.
- 5.2: 1, **3**, **4**, **11**, **17**, **18**, 33, 34, **37**, **38**, **39**, **40**, 47, **48**, **49**, **52**, **53**.
- 5.3: 3, **4**, 7, **8**, **10**, 11, **12**, 13, **14**, **16**, **17**, **18**, 19, **20**, 21, 23, **24**, 25, **26**, 27, **28**, 29, 31, **32**, **34**, 35, 37, 39, **40**, **42**, **45**, **47**, 53, 55, 59, 61, **62**, 63, **64**, **65**, 73, 74.
- 5.4: 5, 6, **10**, 11, **14**, **15**, 16, 18, 21, 23, 25, 27, 28, **29**, 31, **32**, 33, **36**, 37, 38, **39**, 41, 43, 49, 50, 51, 59, **60**, 61, 62, 64, 65 (in 65 find M_5).
- 5.5: 1, **2**, 3, 4, 5, **6**, 7, **8**, 9, 10, **11**, **12**, 13, **15**, **16**, 17, **18**, **20**, 21, 23, 25, **27**, 28, **30**, **31**, **32**, 34, 35, 39, 41, **42**, **43**, 44, 45, **46**, 47, 48, 53, 55, **56**, 57, **58**, 59, 60, 63, **66**, 67, 68, 69, 71, **79**, 81, 82.

Chapter 6: Applications of Integration

- 6.1: 1, 2, 3, 4, 9, 11, 13, **14**, **16**, 17, **18**, **20**, **22**, 24, 27.
- 6.2: 1, **2**, 3, **4**, 5, **6**, 7, **8**, 9, **10**, 11, **12**, 13, 14, 15, **17**, **19**, **20**, **21**, **22**, **23**, **24**, **25**, **26**, **27**, **28**, **29**, **30** (in Problems 19–30 only set up the integrals, do not evaluate them), 54, 55, 56, 57, 58, 59. Also do **A6: 1**

Chapter 7: Techniques of Integration

- 7.1: 1, **2**, 3, 5, 7, 9, 10, 11, **12**, **13**, **23**, 24, 26, **27**, **31**, **33**, **37**, 41, 57, **58**, **65a**.
- 7.2: 1, 3, **4**, 7, **9**, 11, **12**, **13**, **15**, 16, **17**, 21, **22**, 23, 25, 27, **28**, 29, **30**, 33, 34, 35, **38**, **56**, 57, **58**, 61, 62, 63, 65. Also do **A7: 1, 2**
- 7.3: **1**, 2, 3, 4, **5**, **6**, 7, **8**, 9, **10**, **11**, 12, 13, **14**, 17, **20**, 21, 37.
- 7.4: **1**, 2, **3**, 4, **7**, 8, 9, **10**, 12, **15**, **16**, 17, **18**, 19, **21**, **22**, 23, **28**, 64, 65, **66a**.
- 7.5: 1, 3, 5, **6**, 7, 8, **9**, 13, 16, **18**, 19, 20, 22, **24**, **25**, 37, **38**, 54, 57, **59**, 60, **73**.
- 7.8: 1, **2**, 3, 5, 6, 7, 9, 11, 13, 14, 15, 17, 18, **19**, **20**, 21, **22**, 23, **24**, **27**, 28, 29, 31, 32, 39, 40, 41, **42**, 43, **44**, **45** (in problem 44, 45 make a rough sketch, do not use a graphing calculator), **49**, **50**, **51**, **52**, **53**, **54**.

Chapter 11: Infinite Sequences and Series

- 11.1: 1, $\boxed{2}$, $\boxed{3}$, $\boxed{4}$, 5, $\boxed{7}$, 23, $\boxed{25}$, $\boxed{26}$, $\boxed{27}$, $\boxed{28}$, 29, 30, $\boxed{31}$, $\boxed{32}$, $\boxed{33}$, $\boxed{34}$, 35, $\boxed{36}$, 37, 38, $\boxed{39}$, $\boxed{40}$, 41, 42, 43, 44, 45, 47, $\boxed{48}$, 49, 50, $\boxed{51}$, 53, 54, $\boxed{55}$, 56, $\boxed{72}$, 73, $\boxed{74}$, 75, $\boxed{76}$, $\boxed{77}$, $\boxed{78}$.
Also do $\boxed{\text{A11: 1}}$
- 11.2: 1, 3, $\boxed{4}$, 15, $\boxed{16}$, 17, 18, 19, $\boxed{20}$, $\boxed{21}$, 22, 23, $\boxed{24}$, $\boxed{25}$, $\boxed{26}$, 27, $\boxed{29}$, $\boxed{30}$, 31, $\boxed{32}$, $\boxed{33}$, $\boxed{34}$, $\boxed{35}$, $\boxed{36}$, $\boxed{37}$, $\boxed{38}$, $\boxed{39}$, $\boxed{40}$, 43, $\boxed{44}$, $\boxed{46}$, 47, 57, 59, $\boxed{60}$, $\boxed{61}$, $\boxed{63}$, 67.
Also do $\boxed{\text{A11: 2, 3, 4}}$
- 11.3: $\boxed{3}$, $\boxed{4}$, $\boxed{5}$, 7, 8, $\boxed{9}$, $\boxed{10}$, $\boxed{11}$, $\boxed{12}$, $\boxed{15}$, $\boxed{16}$, $\boxed{17}$, $\boxed{21}$, 27, $\boxed{29}$.
- 11.4: 1, 2, $\boxed{3}$, $\boxed{5}$, $\boxed{7}$, $\boxed{8}$, $\boxed{9}$, $\boxed{10}$, $\boxed{11}$, $\boxed{13}$, $\boxed{15}$, $\boxed{19}$, $\boxed{21}$, $\boxed{23}$, $\boxed{24}$, $\boxed{25}$, $\boxed{27}$, $\boxed{28}$, 31, $\boxed{32}$, $\boxed{40b}$, $\boxed{41b}$. Also do $\boxed{\text{A11: 5abcd}}$
- 11.5: 2, $\boxed{3}$, $\boxed{4}$, $\boxed{5}$, 7, $\boxed{9}$, $\boxed{10}$, $\boxed{11}$, $\boxed{12}$, $\boxed{13}$, $\boxed{14}$, $\boxed{17}$, $\boxed{18}$, $\boxed{19}$, $\boxed{20}$
- 11.6: 1, $\boxed{2}$, $\boxed{4}$, $\boxed{5}$, $\boxed{6}$, 7, 9, 10, $\boxed{11}$, $\boxed{12}$, 13, 14, $\boxed{15}$, $\boxed{16}$ (Problems 7, 9, 12, 13, 15, 16, solve in two ways: (1) using the Root Test and (2) using the Ratio Test), 17, 18, $\boxed{19}$, 25, $\boxed{26}$, $\boxed{27}$, 28, 29, $\boxed{30}$, $\boxed{31}$, $\boxed{32}$, $\boxed{33}$, $\boxed{34}$, $\boxed{35}$, 37. Also do $\boxed{\text{A11: 5ef}}$
- 11.7: $\boxed{1}$, $\boxed{3}$, $\boxed{4}$, $\boxed{5}$, $\boxed{6}$, $\boxed{7}$, $\boxed{9}$, $\boxed{11}$, $\boxed{13}$, $\boxed{14}$, $\boxed{15}$, $\boxed{16}$, $\boxed{18}$, $\boxed{19}$, $\boxed{21}$, $\boxed{22}$, $\boxed{23}$, $\boxed{24}$, $\boxed{26}$, $\boxed{28}$, $\boxed{31}$, $\boxed{33}$.
- 11.8: 3, 4, 5, 6, 7, $\boxed{8}$, 9, $\boxed{11}$, $\boxed{13}$, 14, 15, 17, $\boxed{18}$, 19, $\boxed{20}$, 29, 30.
- 11.9: 3, $\boxed{4}$, 5, $\boxed{6}$, 7, 8, 13, $\boxed{14}$, 15, 16, 17, 25, $\boxed{26}$, 27, 28.
- 11.10: $\boxed{2}$, 3, 4, $\boxed{5}$, $\boxed{6}$, $\boxed{7}$, $\boxed{8}$, $\boxed{9}$, 11, 12, $\boxed{13}$, 14, $\boxed{19}$, $\boxed{21}$, $\boxed{22}$, $\boxed{23}$, $\boxed{24}$, $\boxed{25}$, $\boxed{26}$ (in Problems 21–26, only find the **first four** non-zero terms of the Taylor Series), 35, 37, $\boxed{38}$, 39, 40, 43, $\boxed{54}$, 55, 56, 73, 74, $\boxed{75}$, 76, $\boxed{79}$.