

Text: **James Stewart**, *Calculus, Early Transcendentals*, 8th Edition, Cengage Learning

The problems below are all assigned from the textbook, but those of them that are not marked (not boxed) are also assigned to be solved on WebAssign (they are the content of your assignments on WebAssign). **You will get the most benefit from the homework if you write out your solutions to ALL of the assigned problems, including those assigned on WebAssign.**

Chapter 2: Limits and Derivatives

2.1: 3, 5, **7a**

2.2: 1, 2, 3, 4, 5, 7, **8**, 11, **12**, 15, **18**, 31, **32**, 33, 35, 39, 40, 42, **43**, 44a, **45b**, **52**

2.3: 1, 2, 10, 11, **12**, 13, 17, 18, 21, **23**, 24, **25**, 26, 27, 30, 41, 42, 45, 46, 49, 50, **51**, 52a

2.5: **1**, 3, 5, **6**, 7, **8**, **18**, 20, **21**, **22**, 23, 35, 36, **37**, 39, **40**, **41**, 43, 45, 47, **49ab**, 50, 53, 55; also solve the following problem (modified problem 46).

Find the values of a and b that make f continuous everywhere.
$$f(x) = \begin{cases} \frac{x^2-4}{x-2} & \text{if } x < 2 \\ a & \text{if } x = 2 \\ 5x - a + b & \text{if } x > 2 \end{cases}$$

2.6: **2**, 3, **4**, **6**, 7, **9**, 13, 15, 17, **18**, 19, **23**, **24**, 27, 30, 31, 32, 33, 35, **36**, 37, **40**, **42**, **47**, 49, 51, 52

2.7: 1, 3ab, 7, 10ab, 13, 15, **16ab**, **17**, 20, **21**, 22, 31, 33, 35, **37**, **38**, **39**, **40**, 41, **42**

2.8: **21**, **23**, 26, 27, 29, 41, **42**, **43**, **44**

Chapter 3: Differentiation Rules

3.1: 3, 4, 5, 6, 9, 11, 13, **14**, 16, **18**, 19, 20, **22**, 23, **24**, **25**, **26**, **29**, 31, 33, 34, **35**, **37** (find only the tangent line), 40 (no graphing), **45**, 46, 49, **50ab**, 55, **56**, **58**, **59**

3.2: 3, **4**, 5, **6**, 7, 11, **13**, 14, **19**, **20**, 21, **23**, 27, **28**, 31, **32**, **34** (find only the tangent line), 41, 43, **44**, 45, 46, **47**, **51**, 52, 54

3.3: 1, **2**, **3**, **4**, 5, **6**, 9, **11**, **12**, **21**, 22, **23**, **24**, 29, **30**, 32, 33, **34**, 35

3.4: 1, 3, **4**, 5, 7, **8**, 9, **10**, 11, **12**, **13**, 14, **16**, 17, **19**, 21, **22**, 23, **25**, 28, **30**, 31, **36**, 37, **40**, 50, 53, **54**, **59** (in 59 find the points when x values are in the interval $[0, 2\pi]$), 61, 62, 63, 64, 69, 79, 80

3.5: **3**, 5, **7**, 10, 11, 12, **13**, **14**, 15, **16**, **19**, 21, 25, **27**, **28**, 49, **50**, 51, **52**, 55, **56**, **57**, 60

3.6: 2, 3, 4, 6, 9, **11**, 12, 13, 19, 20, 23, **24**, **25**, **31**, 33, **34**, 36 (no graphing), 39, **40**, 41, **42**, 43, 44, 47, 48, 49, 50

3.7: **1**, **3**, **4** (In Problems 1, 3, 4, do parts (a)–(g); also determine whether the particle is speeding up or slowing down at $t = 1$ second), 5, 7, 8, 13ab, 14, 15

3.9: **1**, 2, 3, 4, 5, 6, **7**, **8**, 9, **10**, **11**, **12**, 13, 14, 16, 21, **24**, 29, 30, 32

Chapter 4: Applications of Differentiation

4.1: 3, 5, **6**, 7, **8**, **9**, 10, 11, **12**, 13, 17, 22, 23, 26, 27, 30, 34, 35, 37, 41, **42**, 43, 49, **52**, 53, 55, **56**, 57, **59**, **60**, 61, **62**

4.2: **1**, **2**, **3**, **4**, 5, **6**, 7, **8**, 9, **10**, 11, **12**, 13, **14**, 15, 17

4.3: 1, 2, 5, **6**, **7**, **8**, 9, **10**, 11, 13, 15, 17, 19, 23, **26**, 27, 29, **31**, 34, 35, 36, 40, 43, 45, **48**, **49a**, **52a**, **56a**, 57

4.4: 1, **5**, **7**, 8, **11**, **12**, 13, **14**, 15, **16**, 17, **18**, 19, 20, 21, **23**, 27, 30, 31, 32, **35**, 37, 40

4.7: 2, 3, 5, **6**, 7, 8, 11, 12, 13, 14, 15, 16, 21, **22**

4.9: 1, 4, 5, **6**, 13, **14**, 15, 16, **17**, 18, 21, 23, **24**, 31, **32**, 33, **34**, **36**, 37, 59, **60**

Chapter 5: Integrals

5.2: 33, 34, **49**, 53

5.3: **24**, **26**, 45, 47, 53

5.4: 5, 6, **10**, 11, 16, 21, 23, 25, 27, 28, **29**, 31, **32**, 33, **36**, 37, **39**, 41, 43

5.5: 1, **2**, 3, 4, 5, **6**, 7, **8**, 9, **12**, 13, **15**, **16**, 17, **18**, **20**, 21, 23, 25, **27**, 28, **31**, **32**, 34, 35, 41, **42**, **43**, 53, 55, 57, 59, 60, 63, 69, 71