

Calculus I homework assignments (9th Edition)

Note: Quick check exercises are often quite difficult, and are not assigned.

- 0.1 1,3,7,9,10,23-29 odd
- 0.2 1-39 odd,51,53,59
- 0.4 1-27 odd,35,39,41. Skip 5,15,21,23
- 0.5 1-29 odd, 30,31,39,47,48,49,51
- 1.1 1-9 odd
- 1.2 1-31 odd, 37,41. Let $y = f(x) = (x^3 - 1)/(x - 1)$. Find limit as x goes to 1 of $f(x)$, and sketch the function.
- 1.3 1-31 odd, 47. Skip 7.
- 1.4 No homework
- 1.5 1-21 odd, 29,35,47,49,50. Skip 9.
- 1.6 1-41 odd,42,51,53. Skip 11,15, 39.
- 2.1 3,5,11-17 odd, 27,28
- 2.2 9-17 odd, 21,31,32,46a,47
- 2.3 1-31 odd, 37-55 odd, 61,67,69. Skip 23,27,49,51.
- 2.4 1-33 odd. Challenge:37
- 2.5 1-29 odd, 39,40,43
- 2.6 7-57 odd, 72
- 3.1 1-11 odd, 19,25,27. Find the derivatives of $y = (\sin(3/x))^{5/2}$, the cube root of $(2x - 5)$, $((x+1)/(x-2))$ to the $2/3$ power, $y = x$ cubed times the quantity $(5x^2 + 1)$ to the $(-2/3)$ power.
- 3.2 1-29 odd, 35-45 odd. Find the derivative of x^e .
- 3.3 5, 15-47 odd. Also p. 97: 33,34,35.
- 3.4 6,13,22,27,29,33,37. Challenge: 45
- 3.5 1-11 odd, 21-45 odd, 51-59 odd, 63,64,65
- 3.6 First: 1, 7-19 odd. Second: 21-45 odd, 58. Also limit as x goes to infinity of xe^x , and limit as goes to infinity $(\sin x)/x$.
- 4.1 1,3,7, 15-29 odd, 22,33,37. Skip 21. Also try to sketch 15,17,19,22,23-29 odd. Hint: $\sin 2x = 2 \sin x \cos x$.
- 4.2 3-11 odd,25-59 odd, 65. Skip 57
- 4.3 1-21 odd, 31-59 odd. Skip 17,43,49
- 4.4 1-37 odd. Skip 17,19
- 4.5 1,3,5,6,9,21,31,40,43,44,54,56. Use $x^2 + y^2 = 1$ to prove (1,0) is the closest point to (2,0).
- 4.8 1-7 odd, 10,15,16. Use Rolle's Theorem on $f(x) = x/2 - \text{sq.rt.}x$ on $[0, 4]$. Use MVT on $f(x) = \text{square root of the quantity } 25 - x^2$ on $[-5, 3]$.
- 5.2 1-35 odd, 55,69
- 5.3 1-12 all, 15-61 odd, 62
- 10.1 1-11 odd, 41, 45-53 odd, 55b, 57