

Suggested Problems for Math 191

Basic Technical Mathematics with Calculus, SI Version, 10th Edition, Washington

These are not to be handed in. They will help you prepare for the tests and exam.

Section	Odd Numbered Questions
23.1	11-17, 25, 27, 31, 33, 35
23.2	7-15 ¹
23.3	3, 7, 11, 15, 19, 31, 35, 39 ²
23.5	5, 9, 13, 17, 21, 25, 37, 39
23.4	13, 15, 19, 23, 27, 29, 31; Section 23.5 #45
23.9	3, 5, 11
23.6	3 ³ , 7, 11, 15 ⁴ , 19, 23, 27, 31, 39, 41 ⁵ , 47, 49
23.7	5, 9, 13, 17, 21, 25, 29, 33, 37, 39, 41, 49, 53
23.8	3, 7, 11, 15, 19, 23, 27, 29, 31, 33
Ch 23 Review	5, 7, 15, 17, 19, 23, 29, 33, 35, 39, 41, 59
24.1	3-13 ⁶ , 17, 27
24.2	3-9, 25, 29
24.3	3, 5, 11, 13, 17, 19, 21
24.4	3, 7, 9, 15, 17, 19, 21, 25, 35, 37, 41
24.5	5, 9, 13, 17, 21, 25, 29, 39, 47
24.7	3, 9, 17, 29, 35, 43, 45
24.8	5, 9, 13, 17, 21, 25, 27, 33, 35
Ch 24 Review	3, 5, 7, 13, 21, 25, 31, 39, 45, 47, 53, 59, 65, 69, 75, 79
27.1	3, 9, 11, 13, 15, 23, 41
27.2	3, 5, 7, 9, 13, 21, 31, 33, 35
27.3	3, 7, 11, 23, 41, 53
27.5	3, 5, 7, 9, 13, 17, 19, 23, 45
27.6	3, 5, 7, 9, 11, 13, 21, 25, 27
27.8	17, 19, 21, 39
Ch 27 Review	3, 5, 7, 9, 11, 13, 17, 27, 37, 39, 47, 59, 61, 67, 87

¹ The delta method: $m_{tan} = \lim_{h \rightarrow 0} \frac{f(x+h) - f(x)}{h}$

² Method of Example 5: use the definition of the derivative and rationalize the numerator of the resulting expression.

³ Eq. (23.12) is the Product Rule: $(uv)' = uv' + vu'$

⁴ Eq. (23.13) is the Quotient Rule: $(u/v)' = (vu' - uv')/v^2$

⁵ Instead of a graphing calculator, use wolframalpha.com and type `plot y=x^2/sqrt(x^2+1)`

⁶ You can graph two functions simultaneously in wolframapha.com by typing `plot ____ and ____`

25.1	9, 11, 13, 15, 19, 21
25.2	17, 19, 21, 23, 25, 27, 29, 31, 33, 35, 37, 39, 47, 55
25.3	None
25.4	5, 7, 11, 15, 17, 19, 21, 23, 25, 27, 29, 33, 41
25.5	3, 5, 9, 11, 15
25.6	3, 7, 9, 13
Ch 25 Review	5, 13, 17, 19, 25, 31, 45, 47
26.1	7, 9, 15, 25, 31
26.2	5, 9, 13, 19, 23, 29, 39, 43, 45
26.3	7, 13, 15, 17, 21, 25, 31, 37
26.4	11, 13, 15, 17, 19, 21
26.6	5, 11, 23, 25, 31, 35, 37
Ch 26 Review	13, 15, 17, 21, 23, 29, 43
16.1	5, 9, 11, 13, 19, 21, 25
16.2	3, 5, 7, 9, 11, 13, 17, 23, 25, 31, 39
16.3	3, 5, 11, 13, 19, 21, 23, 35, 37
16.4	3, 7, 15, 17, 19
16.5	3, 7, 9, 11, 13, 15, 17, 19, 25, 27
Ch 16 Review	11, 15, 17, 21, 29, 45