

Do your homework! It is an opportunity to learn, not a basis for grading. Learning mathematics is an active process - you cannot succeed just by listening or by watching someone else do problems. Time (about twice as many hours as you spend in class each week) spent on going over your notes, reading your textbook and working exercises will help you clarify ideas and methods and discover points you don't understand. Check your answers in the back of the book. While doing your work outside of class, make notes about anything that you are having trouble understanding. **Be ready to ask questions about homework (or anything else) at the beginning of class, but do not ask questions about problems you have not tried.** Work with a classmate or two. Talk and listen as well as write when you study. Additional problems, such as classroom handouts, will also be assigned frequently.

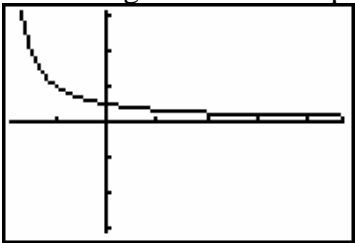
If you miss a class, go to the course website to learn the current assignment and whether any important announcements were made in class. To get to the website, go to my homepage at www.montgomerycollege.edu/~jriseber/ and click the link for MA 181. **Be sure to log in at the MA 181 homepage the first time you go to it and if you have been absent.** You should add the MA 181 homepage to your list of bookmarks or favorites, and check the site periodically, especially if you are late or absent.

Please turn over for answers to some of the assigned even-numbered problems

Section	Page	Assignment	Done (✓)
1.1	p. 22	21, 23, 25, 51, 52, 55, 56, 57	
1.2 (a)	p. 35	1, 11, 13, 15	
(b)		19, 20, 21, 22, 25	
2.1	p. 97	1, 3, 4, 5, 6	
2.2 (a)	p.106	1, 13, 15, 22, 23	
(b)		3, 5, 7, 9, 11, 16	
2.3 (a)	p. 115	1, 2, 8, 9 – 23 odd	
(b)		25, 27, 35, 36	
2.4 (a)	p. 126	1 – 9 odd, 13, 15	
(b)		17, 19, 21, 31, 33, 37, 38	
2.5 (a)	p. 137	1ab, 3abc, 12, 15, 16, 17	
(b)		1cd, 2, 3def, 5, 7, 9, 11, 21, 23, 27, 33, 35, 43	
2.6	p. 145	1 – 9 odd, 13, 15, 18, 22, 25ab	
2.7	p. 153	1, 3, 4, 5, 7, 11, 12, 13, 25, 28, 31, 33	
2.8	p. 165	1, 3, 5, 14, 19, 20, 23, 29, 31, 33, 35	
2.9	p. 173	1, 3, 5, 9, 11, 13, 14, 15 – 21 odd	
3.1 (a)	p. 190	3 – 9 odd, 13, 15, 16, 19, 21, 24, 27, 31, 37, 41	
(b)		2, 11, 23, 25, 43, 44, 45, 46, 47, 48, 49, 53, 57 (Hint: Start with $f(x) = ax^2 + bx + c$), 58, 62	

OVER →

Answers

1.1/ 52. $P(L) = 2L + 32/L$	1.1/ 56. $A(x) = 15x - x^2 \left(\frac{\pi + 4}{8} \right)$	1.2/ 20. (a) $f(x) = a \cdot b^x$ or $f(x) = a \cdot b^x + c$ (b) $f(x) = a/x$
1.2/ 22. (b) $y = 4.8567 - 220.9667$	2.1/ 4. (b) the slope appears to be $\frac{1}{2}$ (c) $y = \frac{1}{2}x - \frac{1}{2}$	2.1/ 6. (a) (i) 55.51 m/s (ii) 55.925 m/s (iii) 56.257 m/s (iv) 56.3317 m/s (v) 56.33917 m/s (b) 56.34 m/s
2.2/ 16. 0	2.2/ 22. (a) ≈ 1.1	2.3/ 2. (a) 2 (b) DNE (c) 0 (d) DNE (e) 16 (f) 2
2.3/ 36. (a) (i) 2 (ii) -2 (b) DNE	2.4/ 38. $f(x) = \sqrt[3]{x} + x - 1$ is continuous on $[0,1]$, $f(0) < 0$, $f(1) > 0$ so by the Intermediate Value theorem, there is a number c in $(0,1)$ such that $f(c) = 0$. Thus the given equation has a root in the interval $(0, 1)$.	
2.5/ 12. For (a), (b) and (c) $\lim_{x \rightarrow 1^-} f(x) = -\infty$ and $\lim_{x \rightarrow 1^+} f(x) = \infty$	2.5/ 16. $-\infty$	2.6/ 18. (a) 56.34 m/s (b) $58 - 1.66a$ m/s (c) $t \approx 69.9$ s (d) -58 m/s
2.6/22. $\approx -0.7^\circ F / \text{min}$	2.7/4. (a) $y = 4x - 23$ (b) $f'(4) = \frac{1}{4}$	2.7/ 12. (a) 2 (b) 2
2.8/14. See figure 1 in 3.4	2.8/ 20. $3x - 1$; domain is all reals	2.9/ 14. The function must be decreasing and concave upward. 
3.1/ 2. (a) The function value at $x=0$ is 1 and the slope at $x=0$ is 1. (b) $f(x) = e^x$ is an exponential function and $g(x) = x^e$ is a power function. $f'(x) = e^x$ and $g'(x) = ex^{e-1}$ (c) The exponential function grows more rapidly.		3.1/ 16. $y' = \frac{3}{2}x^{1/2} - \frac{1}{2}x^{-1/2} = \frac{3x-1}{2\sqrt{x}}$
3.1/ 24. $u' = \frac{2}{3}t^{-1/3} + 3t^{1/2} = \frac{2}{3\sqrt[3]{t}} + 3\sqrt{t}$	3.1/ 44. $(4/3, \infty)$	3.1/ 46. $\frac{-6 \pm \sqrt{24}}{6} = \frac{-3 \pm \sqrt{6}}{3}$
3.1/ 48. $y = 3x - 4$	3.1/ 58. $A = B = -1/2$ and $C = -3/4$	3.1/ 62. $y = 3x^2 - 2x + 7$