

NOTE: Your instructor may make changes to these assignments, so please check with your instructor to be sure that you do the correct problems at the correct time.

Text: Thomas' Calculus 11th Edition; Weir, Hass, Giordano

Lesson 1: In **Section 1.5**, read from page 41 to page 43 (but not the part about "Exponential growth and decay"). In **Section 3.4**, read the table on page 185. In **Section 3.5**, read from the beginning of the section to the end of Example 9.

Do these problems. In general, in this course you have to show your work to get full credit, but for this assignment and the next it's OK to do the problems in one step.

p. 45 # 4, 14, 15; p. 199 # 35, 43, 47, 48, 50, 53, 57

Lesson 2: In **Section 1.6**, read from page 47 to the end of Example 6. In **Section 3.7**, read from the beginning of the section to the end of Example 3.

Do these problems:

p. 60 # 25(d), 29(c), 37; p. 199 # 56, 60, 64, 73(e); p. 221 # 29, 32, 40

Lesson 3: In **Section 5.1**, read pages 352-357. Remember that you have to show your work to get full credit (unless the problem really has only one step).

p. 60 # 27(c), 39(b), 43; p. 200 # 66, 74(deg); p. 360 # 9(b), 11(b), 12(a)

Lesson 4:

In **Section 5.2**, read from the beginning of the section to the end of Example 2.

p. 200 # 75, 76; p. 360 # 10(b), 12(b); p. 369 # 1, 2, 9, 10 (for #9 and #10 you must explain why your answer is right)

Lesson 5: See the pdf for this lesson posted on the website:

<http://www.math.purdue.edu/academic/courses/MA173/>

Lesson 6: In **Section 5.4**, read from the bottom of page 388 to the end of the section.

p. 380 # 13(b), 14(a); p. 392 # 20, 23, 35(ab), 36(ab), 51, 52 (for # 35 and # 36, see Example 3(d) for a hint)

Lesson 7: Read **Section 5.5**, but skip Examples 5 and 11. Do the following problems:

p. 392 # 54, 74(abc) (hint for # 74: see the answer to # 73);

p. 402 # 18, 20, 22, 28, 30, 34

Then do the following.

A) Evaluate the integral $\int \frac{dx}{2x+3}$ B) Evaluate the integral $\int \frac{e^{2x}}{e^{2x}+1} dx$

Lesson 8: Read **Section 5.6** (but you may skip Example 7)

p. 394 # 74(de); p. 403 # 43, 59 (for # 59, see Example 5 on page 335); **p. 410 # 16, 17, 23, 57, 58, 59, 60, 64** (for # 23, see Example 9 on page 400)

Lesson 9: In **Section 6.1**, read from the bottom of page 428 to the end of example 8.

p. 403 # 65, 66; p. 411 # 25, 28, 66, 67, 112 (hint for #112: substitute $u = 1 - x$);

p. 436 # 15, 22, 29, 30

Lesson 10: In **Section 6.1**, read from the beginning of the section to the end of Example 1, and also from page 432 to the end of the section.

p. 411 # 32, 36; **p. 414** # 113(b) (hint: substitute $u=-x$); **p. 436** # 37, 41, 42, 44, 51(ad), 52(a), 53(c)

Lesson 11: Read **Section 6.2**, but skip Example 3.

p. 443 # 1, 2, 5, 6, 7, 9, 10, 11

Lesson 12: In **Section 3.5**, read from the bottom of page 194 to the end of Example 13.

p. 445 # 25(ab), 36 (for #25, revolve around the y-axis only); **p. 201** # 82, 84, 86, 94(a), 96, 97, 102. For #102, only find the equation for the tangent line, don't find the second derivative. (Hint for #94(a): see the solution of #93(a))

Lesson 13: In **Section 6.3**, read to the end of Example 3.

p. 201 # 88, 94(cd), 100, 104 For # 104, only find the equation for the tangent line, don't find the second derivative.

p. 452 # 3, 4, 9, 10

Lesson 14: Read **Section 6.6**, but skip Examples 2 and 6.

p. 452 # 6, 7; **p. 482** # 1, 2(ab), 7, 8, 13, 15(a), 16(a)

Lesson 15: Read **Section 7.2**.

p. 482 # 14, 22, 23, 24; **p. 515** # 3, 4, 8, 17

OPTIONAL READING IN SECTION 7.1: from the beginning of the section to the middle of page 498

Lesson 16: In **Section 4.6**, read pages 316-317 and from the middle of page 319 to the end of the section.

p. 323 # 14, 16, 19, 24, 25, 43, 45, 46; **p. 515** # 5, 18

Lesson 17: In **Section 7.3**, read from the beginning of the section to the end of Example 1. In **Section 1.6**, reread pages 47-50.

p. 59 # 13, 16; **p. 323** # 21, 23, 62; **p. 521** # 2(afh), 5(e), 7 (be sure to justify your answer for # 7)

Lesson 18: In **Section 1.6**, read from the bottom of page 54 to the end of the section (but only read about the inverse sine—IGNORE the inverse cosine). In **Section 3.7**, read from the beginning of the section to the end of Example 2.

p. 61 # 59(abc), 62(ab); **p. 221** # 7, 8, 9, 10; **p. 522** # 8 (be sure to justify your answer)

Lesson 19: See the pdf for this lesson posted on the website:

<http://www.math.purdue.edu/academic/courses/MA173/>

Lesson 20: Read **Section 8.1** (but you may skip Examples 4 and 7)

Do **p. 543** # 8, 29, 37, 38, 39, 48, 50, 56, 77, 84(ab)

Lesson 21: In **Section 8.2**, read pages 545-549

p. 552 # 3, 5, 6, 7, 8, 9, 10, 16, 17, 22 (Do NOT use integral tables for any of these)

Lesson 22: In **Section 8.3**, read Examples 1, 9, 2, 3, 6, 7 (in that order).

p. 552 # 20, 25; **p. 563** # 11, 12, 15, 16, 17, 20, 30

Lesson 23: See the pdf for this lesson posted on the website:

<http://www.math.purdue.edu/academic/courses/MA173/>

Lesson 24: Read **Section 8.5**.

p. 563 # 10, 32; **p. 575** # 2, 7, 8, 10, 15, 16, 19, 20 (Do not use integral tables for these but you may use the formula for the integral of $\sec u$ at the top of page 542.)

Lesson 25: See the pdf for this lesson posted on the website:

<http://www.math.purdue.edu/academic/courses/MA173/>

Lesson 26: In **Section 11.1**, read from the beginning of the section to the top of page 733, and from the bottom of page 734 to the end of Example 6.

p. 575 # 21; **p. 615** # 2; **p. 741** # 4, 16, 18, 27, 28, 33, 35, 37

Lesson 27: In **Section 11.2**, read from the beginning of the section to the end of Example 4. Also read Examples 8, 9, 10.

p. 741 # 34, 38, 41, 47; **p. 753** # 2, 8, 9, 25, 51, 52

Lesson 28: See the pdf for this lesson posted on the website:

<http://www.math.purdue.edu/academic/courses/MA173/>

Lesson 29: In **Section 11.4**, read from the bottom of page 762 to the end of Example 2(b).

p. 755 # 75; **p. 765** # 2, 6, 8, 19, 27

Lesson 30: In **Section 11.5**, read from the beginning of the section to the end of Example 1.

p. 765 # 20, 28; **p. 770** # 2, 3, 4, 5, 17, 18, 21

Lesson 31: In **Section 11.6**, read from the beginning of the section to the end of Example 4.

p. 776 # 2, 4, 5, 11, 13, 15, 19, 23, 45, 47

Lesson 32: In **Section 11.7**, read from the beginning of the section to the end of Example 3 (but ignore the discussions of convergence at $x=1$ and $x=-1$ in Example 3(a) and 3(b)). Also read Examples 4, 5 and 6.

For the homework you need to know what the phrase “radius of convergence” means: it is the number R in item 1 of the box on page 783 (but ignore the rest of the box).

This Lesson has some homework from Section 11.8, but you don’t need to read Section 11.8 to do these problems.

p. 788 # 6, 7, 11, 13, 19 (but just do part (a), that is, just give the radius and open interval of convergence);

p. 794 # 9, 11, 13 (explain how you got your answer)

Lesson 33: In **Section 11.8**, read from the beginning of the section to the end of Example 3.

In **Section 11.9**, read Examples 4 and 5 on page 799.

p. 788 # 3, 8, 12, 26 (just give the radius and open interval of convergence)

p. 794 # 3, 5, 25, 27; **p. 803** # 8, 11

Lesson 34: Read Example 7 on page 813

Then go to the webpage http://wps.aw.com/aw_thomas_calculus_11/

Click on Student Resources; Click on Appendix A.5: Complex Numbers (the third link from the bottom on this page); Note: this appendix might not print properly, so you might have to read it from the screen.

In Appendix A.5, read from page AP-14 to the middle of page AP-17

Do these problems:

p. 788 # 25; **p. 795** # 22; **p. 803** # 10, 12 **p. 816** # 47, 48, 55 (use power series for these, not l'Hopital's rule; see Example 7 on page 813)

p. AP-21 (in Appendix A.5) # 2(ab)

Lesson 35: On page 802, read about "Euler's identity"

In **Appendix A.5**, read from the middle of page AP-17 to the end of Example 3.

p. 805 # 49(abc), 50, 54; **p. 816** # 50 (use power series instead of l'Hopital's rule); **p. AP-21 (in Appendix A.5)** # 2(c), 11, 13

Lesson 36: In **Section 10.1**, review the equations for parabolas, ellipses and hyperbolas. For this course you will NOT need to know about the focus and directrix of a parabola, or about the foci of an ellipse or hyperbola. In **Section 10.3**, read from the beginning of the section to the end of Example 1.

p. 678 # 20, 22, 28, 30 (Just give the sketches, and include the asymptotes for the hyperbolas. You do not have to include the foci.)

p. 691 # 18, 37(ab) (for # 18, rotate by $\pi/4$ radians)

p. AP-21 (in Appendix A.5) # 12, 14 (do not draw Argand diagrams)

Lesson 37: In **Section 10.3**, read from the bottom of page 687 to the end of Example 2.

In **Section 10.4**, read from the beginning of the section to the end of Example 3. (Page 695 is optional).

p. 691 # 20, 22, 26; **p. 696** # 2, 7, 10

Lesson 38: Read **Section 10.5**.

p. 702 # 2, 6(deh), 12, 32, 34, 35

Lesson 39: In **Section 10.6**, read from the bottom of page 703 to the end of Example 2. Also read Examples 4 and 5. Ignore all statements about symmetry.

p. 702 # 45, 46; **p. 708** # 4, 6, 18, 19, 30, 32, 34 (for #4 and #6, just draw the graph, don't discuss symmetry)

Lesson 40: In **Section 10.7**, read from the beginning of the section to the end of Example 2.

p. 708 # 10, 12, 20, 36; **p. 714** # 2, 3; **p. 725** # 52, 78