

Math 2153 Maple TA Homework Guide

Assignment Prerequisites	Maple TA Questions	Related Text Problems
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Homework 1: Sections 7.2 and 7.3

Review shapes of graphs p 30-35, 423, 438	Question 1, 16	p 431: 5 ,6, 19-21
Read p 426-428, review Sections 3.3, 3.6	Questions 2 ,6, 7, 8, 21	p 431-432: 29-42
Read p 430, review Section 5.5	Questions 3, 5, 9, 10, 11, 12	p 433:71-78
Review p 128	Question 4	p 432: 43, 44, 46
Read p 434-436	Questions 13-15	p 439: 29-38
Review p 413-416	Questions 17, 18	p 420: 25-30; p 440: 61-66
Read p 429, 437-438	Questions 19, 20	p 431: 23-28; p 440: 51-56

Homework 2: Sections 7.4 and 7.5

Read p 441-443, 445-446; Take careful note of formulas 3 and 4	Questions 1-8, 11	p 449: 2-24, 35-36
Read 445-446	Questions 9, 10	p 449-450: 39-50
Read p 446-448; Note the use of absolute values.	Questions 12-14	p 450: 45-76
Read 477-482; Use arcsin, arccos, etc. in Maple TA not \sin^{-1} . Note that the arcsec(x) as defined in the text is not universal. Try arcsec(-2) on your calculator.	Question 15-17	p 484: 22-37
Read 482-483	Questions 18-23	p 485: 59-70

Homework 3: Sections 7.7 and 8.1

Read p 493-497. Note the difference between Examples 2 and 3 and the "error" in Example 5.	Questions 1-3, 5-7, 9, 10	p 501:5-36
Read p 497-498	Questions 4, 8	p 501-502: 37-50
Read p 498-501	Questions 11, 12	p 502:51-62
Read p 511-514	Questions 13-18	p 516: 1-14, 19-22

Read p 514–516	Questions 19–22	p 516–517: 15, 16, 23–40, 55–58
Homework 4: Sections 8.2 and 8.3		
Read p 518–520	Questions 1, 2, 6	p 524: 1–18
Read p 521–523	Questions 3, 4	p 524: 21–40
Read p 523–524	Question 5	p 524: 20, 41–44
Review Sections 6.2 and 6.3	Question 7	p 525: 59–62
Read p 525–530. Note the intervals specified for secant substitutions.	Questions 8–11	p 530–531: 1–30
Homework 5: Sections 8.4 and 8.5		
Read p 532–539. Review long division of polynomials. Take careful note of the form of the summands in the partial fraction decomposition and the technique of integration applied to each type of summand.	Questions 1–6	p 540: 1–38
Read p 541–545. Study the four step strategy and its application	Questions 7–16	p 546–547: 1–80
Homework 6: Sections 8.8 and 12.1		
Read p 566–569	Questions 1–7	p 573: 1, 2, 5–26
Read p 569–573	Questions 8–10	p 573: 27–40, 55, 56
Read p 737–739	Questions 11–13	p 746–747: 3–14
Read p 739–743	Questions 14–19	p 747: 15–48
Read p 744–746	Question 20	p 747: 54–60
Homework 7: Sections 12.2 and 12.3		
Read p 749–752. Study examples 4 and 5.	Question 1–4	p 756–757: 3–8, 11–34, 35–45
Read p 753–756. Study example 6 where $c_n = 1/n$.	Questions 5–10	p 756: 11–34
Read p 759–762	Questions 11–16, 18, 19	p 765: 3–24
Study example 2	Question 17	p 765–766: 25–28
Read p 762–765	Questions 18, 19	p 766: 30–35

Review	Questions 20–23	
Homework 8: Section 12.4		
Review p 740–743; Read p 766–769	Questions 1–3	
Read p 769–770	Questions 4–10	p 770–771: 3–28, 38
Review	Questions 11–16	
Homework 9: Sections 12.5 and 12.6		
Read p 771–775. Note how condition (i) of the test is checked.	Questions 1–10	p 775–776: 2–20, 23–30, 32–34
Review p 498–499	Question 11	p 502: 51–62
Read p 776–780. Think about the features of the terms that make the ratio test easier than the root test and when the reverse is true.	Questions 12–17	p 781–782: 2–22
Study examples 5 and 6	Questions 18–20	p 782: 23, 25–30
Homework 10: Section 12.8		
Read p 785–789. The text uses the Ratio Test to determine the radius of convergence but the exercises use the Root Test as well.	Questions 1–10	p 789: 3–30
Homework 11: Sections 12.9 and 12.10		
Read p 790–791	Questions 1–4	p 795: 3–12
Read p 791–794	Questions 5–7	p 795: 13, 15–18
Read p 796–803	Questions 8–11	p 806: 3–8, 11–20, 23–30
Read p 804–806	Questions 12–14	p 795: 27–30; p807: 39–49, 55–60
Homework 12: Sections 11.1 and 11.2		
Read p 687–691	Questions 1–7	p 692–693:1–28
Read p 696–698. Ignore Example 2 part (b)	Questions 8, 9	p 702: 1–8, 11–20, 25, 26, 30
Read p 698–702	Questions 10–12	p 703: 31–33, 37–48, 51, 52, 57–61, 65, 66

Homework 13: Section 11.3		
Read p 705-707. Note that both the radius and angle can be negative.	Questions 1-4	p 713: 1-12
Read p 707-713	Questions 5-11	p 714: 15-26, 29-46, 54-66
Homework 14: Section 11.4		
Read p 715-718	Questions 1-8	p 719: 1-42
Read p 718-719	Questions 9, 10	p 720: 45-48
Homework 15: Section 11.5		
Read p 720-725	Questions 1-6	p 726: 1-48