## Assignments

We aim to help you succeed. Please come to the Tutoring room or office hours for help, or email us. Also, try posting a question in the Discussion forum.

### Homework Assignments

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| HW11       | Tuesday, 10/25, start of discussion section | $7.8$: 49,50,51,54,58,62 (aside: this problem uses the Boltzmann distribution!)
                         $8.1$: 3,4,6,40a (see Sec. 3.11 for properties of cosh and sinh; your answer will involve a and b) | Section 7.8, 8.1    |
| HW12       | Thursday, 10/27, start of discussion section | $8.2$: 1,2,3,4, 25 (hint: do not try to evaluate the integral, instead, use a comparison theorem to show that the integral diverges), 33 (hint: use parts (e) and (f) of Problem 2 on Worksheet 17) 34 (hint: we found formulas for ds and dA in class, for the sphere)  
                      $8.3$: 26, 45 (hint: before beginning problem 45, re-do problem 26 with the line 3x+2y=6 replaced by the line hx+ry=hr, which has intercepts (r,0) and (0,h)) | Section 8.2, 8.3    |
| WA15       | Friday, 10/28, 11am | problems in WebAssign                                      | Sections 8.1, 8.2   |
| WA16       | Monday, 10/31, 11am | problems in WebAssign                                      | Section 8.3         |
| HW13       | Tuesday, 11/1, start of discussion section | $8.3$: 5,18,20,40,46  
                      In problem 40, also answer the following question: is the centroid inside or outside the region? | Section 8.3         |
| WA17       | Thursday, 11/3, 11am | problems in WebAssign                                      | Sections 11.1, 11.2 |
| Midterm 3  | Practice        | not due, no credit                                         | Section 8.3         |
| WA18       | Friday 11/11, 11:11am | 11 problems in WebAssign                                  | Sections 11.1, 11.2, 11.3, 11.4 |
| HW14       | Tuesday, 11/15, start of discussion section | $11.1$: 39 (you may use results from earlier in the semester), 58b  
                        $11.2$: 48, 50  
                        $11.3$: 32, 39  
                        $11.4$: 24, 26, 37, 45  
                        $11.5$: 4, 31, 32 (make sure you consider all possible real number values of p) | Sections 11.1-11.5  |
| HW15       | Thursday, 11/17, start of discussion section | $11.6$: 12,17,20,28,30  
                        $11.7$: 8,22,26,28  
                        $11.8$: 4,5,10,14  
                        *Practice using the strategies on page 721, in order to do this homework!  
                        *You must explain all your answers, saying which convergence test applies (and why) | Sections 11.6-11.8  |
| WA19       | Monday 11/21, 6pm | problems in WebAssign                                      | Sections 11.8, 11.9 |
| HW16       | Tuesday, 11/29, start of discussion section | $11.9$: 28, 29 (start from Example 7), 34b (the function $f(x)$ is defined on page 730; and if you get stuck, then try writing out the first 4 terms)  
                        $11.10$: 27,46,51,59,63,64  
                        You must explain all your answers  
                        Hint for red problems: follow the TEC link here | Sections 11.9, 11.10 |
| HW17       | Thursday, 12/1, start of discussion section | $11.11$: 13 (for part (c) remember $R_n(x)=f(x)-T_n(x)$), 20, 35ab (hint: consult the graph and derivative formulas for tanh(x) in Section 3.11; "Maclaurin series" just means "Taylor series with a=0")  
                        $10.1$: 8,10,17, 24 (explain each answer something like this: for (a), we are given that $1<\alpha<2$ and y takes both positive and negative values, and the only graph matching these features is graph III) | Sections 11.11, 10.1 |
### Old homework - first half of semester

**Grading scheme for written homework**

10 - almost perfect work  
9 - about four fifths of the work is correct  
8 - about three fifths of the work is correct  
7 - about half of the work is correct  
1-6 - half or less of the work is correct (by the grader's judgment)  
(Some longer homework assignments will be graded out of 20 points. Simply double the point guidelines.)  
The graders will write brief comments when they find mistakes - you should re-work these problems for your own benefit, and talk to a TA or professor to clear up any difficulties.