## Written Homework Assignments

Refer to Learning Suite for the due dates. The following problems are numbered according to the $9^{\text {th }}$ Edition of the textbook "Multivariable Calculus" by Stewart, Clegg, and Watson.
$E a c h$ " $M$ " problem is optional. If you do it using Mathematica (writing the Mathematica command and picture, if applicable, in your homework), you will get 2 bonus points. You won't get the bonus point if you use a different software. See the last page of the syllabus for an example.

| HW \# | Section | Problems |
| :---: | :---: | :---: |
| 1 | 12.1/12.2 | $\begin{aligned} & \text { 12.1: } 13 \mathrm{a}, 16,19,33,44 \\ & \text { 12.2: } 2,10,19,20,24 \\ & \hline \end{aligned}$ |
| 2 | 12.3/12.4 | $\begin{aligned} & \text { 12.3: } 4,19,26,56 \\ & \text { 12.4: } 4,19,28,37 \end{aligned}$ |
| 3 | 12.5/12.6 | $\begin{aligned} & \text { 12.5: } 4,5,9,20,28 \\ & \text { 12.6: } 4(\mathrm{M}), 21-30,48 \end{aligned}$ |
| 4 | 13.1/13.2 | $\begin{aligned} & \text { 13.1: } 4,12(\mathrm{M}), 21,39 \\ & \text { 13.2: } 4(\mathrm{M}), 10,17,25,43 \end{aligned}$ |
| 5 | 13.3/13.4 | $\begin{aligned} & \text { 13.3: } 5,9(\mathrm{M}), 24,35 \\ & \text { 13.4: } 12,18(\mathrm{M}), 19,39 \end{aligned}$ |
| 6 | 14.1/14.2 | $\begin{aligned} & \text { 14.1: } 12,31(M), 32,52(M) \\ & \text { 14.2: } 6,18,28,33,45 \end{aligned}$ |
| 7 | 14.3/14.4 | $\begin{aligned} & \text { 14.3: } 4,9,18,26,41,54,59 \\ & \text { 14.4: } 4,12(\mathrm{M}), 19,24,32 \end{aligned}$ |
| 8 | 14.5/14.6 | $\begin{aligned} & \text { 14.5: } 1,14,19,26,32,51 \\ & 14.6: 4,10,13,23,28,31 \end{aligned}$ |
|  | MT Review | Review sheet and practice test |
| 9 | 14.7/14.8 | $\begin{aligned} & \text { 14.7: } 5,15,25(\mathrm{M}), 34,46 \\ & \text { 14.8: } 2(\mathrm{M}), 9,30,39 \end{aligned}$ |
| 10 | 15.1/15.2 | $\begin{aligned} & \text { 15.1: } 18,20,32,45,50(\mathrm{M}) \\ & \text { 15.2: } 12,20,25,31,56,63 \end{aligned}$ |
| 11 | 15.3/15.6 | $\begin{aligned} & \text { 15.3: } 1-6,14,25,32,39,43(\mathrm{M}) \\ & \text { 15.6: } 3,10,17,20,27(\mathrm{M}) \end{aligned}$ |
| 12 | 15.9/15.7 | $\begin{aligned} & \text { 15.9: } 1,8,14,19,22(\mathrm{M}), 26 \\ & \text { 15.7: } 4,11(\mathrm{M}), 19,23,26,32 \end{aligned}$ |
| 13 | 15.8/16.1 | $\begin{aligned} & \text { 15.8: } 17,25,26,32,42(\mathrm{M}) \\ & \text { 16.1: } 3,13-18,28,31-34,36(\mathrm{M}) \end{aligned}$ |
| 14 | 16.2/16.3 | $\begin{aligned} & \text { 16.2: } 2,7,20,22,30(\mathrm{M}) \\ & \text { 16.3: } 3,6,20,21,35 \end{aligned}$ |
| 15 | 16.4/16.5 | 16.4: 2, 8, 13, 16, 20(M) <br> 16.5: 7, 9-12 (in part (b), change the question to: Is curl $F$ zero, positive, or negative? Explain), 15, 22 |
| 16 | 16.6/16.7 | $\begin{aligned} & \text { 16.6: } 1,23,24,34,41,44 \\ & \text { 16.7: } 14,23,26,27,34(\mathrm{M}) \end{aligned}$ |
|  | Final Review | Review sheet and practice test |

