MATH 203 Calculus III
Homework 9

Basic Information

This assignment is due on Gradescope by **1:30 PM on Tuesday, March 4**.

Make sure you understand MHC honor code and have carefully read and understood the additional information on the class syllabus. I am happy to discuss any questions or concerns you have!

Since this is a 200-level mathematics course, quite a few homework questions will ask you to explain your reasoning or process for solving a problem. Whenever possible, write your explanations in complete sentences and write your answers as if you were explaining to a peer in the class.

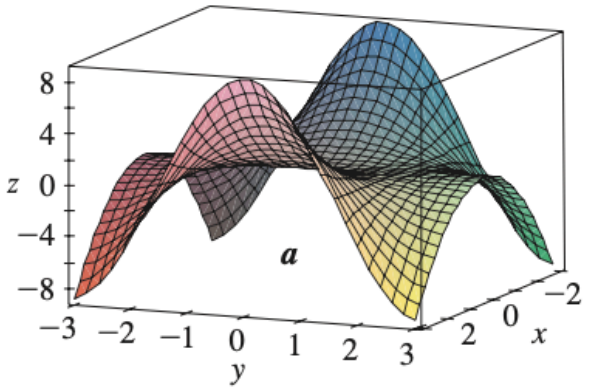
The homework problems will be graded anonymously so please do not put your name or other identifying information on the pages.

Turn In Problems

- 12.3: 12, 18, 24, 28
- 12.7: 20 (Use the point (3,-1) instead of (2,1).)
- 12.5: 8, 12 (Note for these problems, you do need to replace x and y in your final answer with t since the book asks for values at a particular t value.)
- #8. Find the tangent plane of the function $f(x,y)=\sqrt{20-x^2-7y^2}$ at $(2,1)$.

Additional Problems (to do on your own, not to turn in)

- 12.3: 7, 11, 15, 27
- 12.5: 7, 11, 21
- 12.7: 19, 20 <— Think about what is going on at (2,1) based on the tangent plane there.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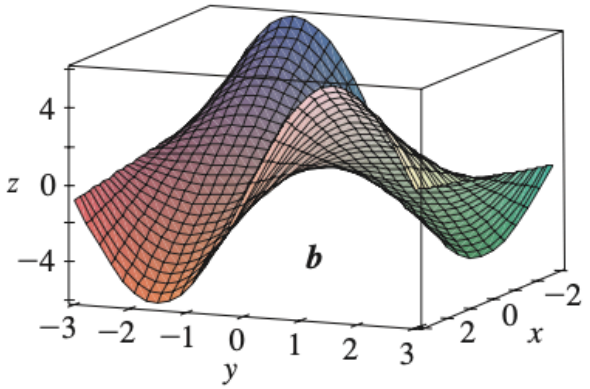
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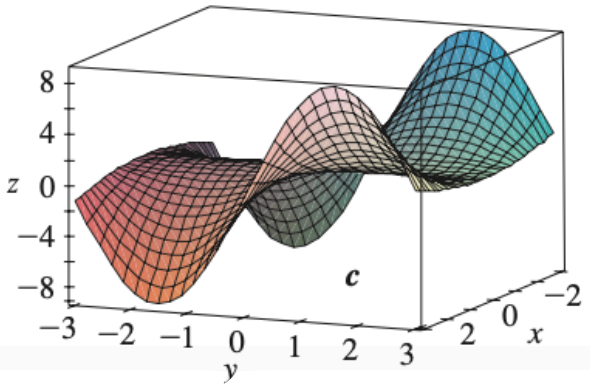
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