Name:

SM223 – Calculus III with Optimization   Fall 2017
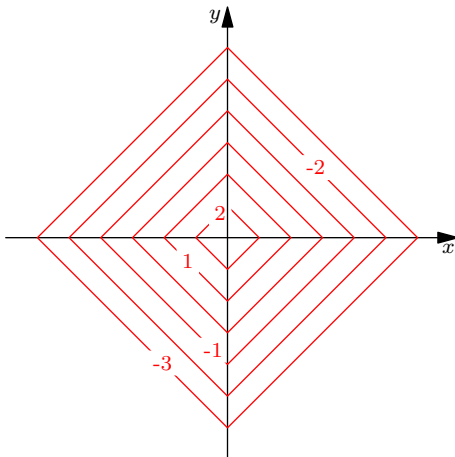Assoc. Prof. Nelson Uhan

Quiz 5 – 28 September 2017

Instructions. You have 10 minutes to complete this quiz. You <u>may</u> use a calculator. You may <u>not</u> use any other materials (e.g., notes, homework, books). <u>Show all your work.</u>

Problem	Weight	Score
1	1	
2	1	
3	1	
Total		/ 30

Problem 1. A projectile is fired from the ground with an initial speed on 200 m/s and angle of elevation 60°. When does the projectile land?

Problem 2. Consider the contour map below of a function f. Either (i) describe the graph of f in words, or (ii) draw a rough sketch of the graph of f. Be as specific as you can.

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Problem 3. Make a rough sketch of a contour map for the function whose graph is shown below. Be sure to draw contours for the regions outside the peaks.