Name:

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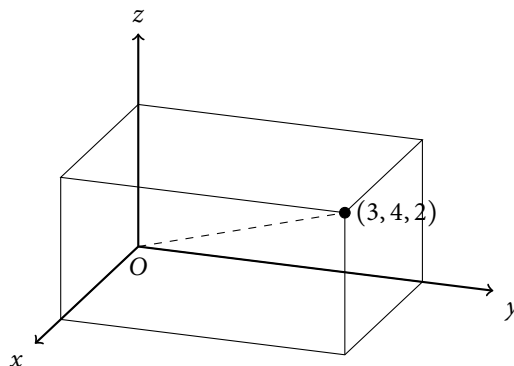Assoc. Prof. Nelson Uhan

Quiz 1 – 24 August 2017

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

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

Below, there is a rectangular box with the origin and $(3, 4, 2)$ as opposite vertices with its faces parallel to the coordinate
planes.

Problem 1. Label the 7 other vertices of the box.

Problem 2. Find the length of the diagonal (the dashed line above) of the box.

Problem 3. Find a unit vector in the same direction as $8\vec{i} - \vec{j} + 4\vec{k}$.