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| Assessment 2Dusty Wilson Math 163 No work = no credit | **Name**: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  *It appears to me that if one wishes to make progress in mathematics, one should study the masters and not the pupils.* Niels Henrik Abel 1802 - 1829 (Norwegian mathematician) |

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| Warm-ups (1 pt each): | =\_\_\_\_\_ | =\_\_\_\_\_ | =\_\_\_\_\_ |

(1 pt) According to Ramsey (above), who should we learn from? Answer using complete English sentences.

(5 pts) If  and  find the following:

1. 
2. 
3. 
4. 
5. 

(2 pts) Find 

(4 pts) Find a unit vector  in the direction of the vector from  to .

(4 pts) Find the angle between  and  (in radians).

(4 pts) Find the center and radius of the sphere 