MPM 2D (Version E) Name: _____
Mr. Kempe Date: _____

Quiz #2B – Analytic Geometry

[15 marks]

1. Consider the points A(3,2) and B(11,6).

   a. Determine the distance between A and B. [2]

   b. Determine the midpoint of A and B. [2]

   c. Determine the slope of AB. [2]

   d. State the slope that is perpendicular to the slope of AB. [1]

   e. Use your midpoint and your perpendicular slope to determine the equation of the perpendicular bisector of AB. [2]

MPM 2D (Version E) Name: _____
Mr. Kempe Date: _____

2. An aircraft radar has a radius of 100km.
   a. Write the equation of the circle that represents the radar. [1]

   b. A helicopter is hovering at the point H(85, 50), relative to the center of the radar. Is the helicopter detected by the radar? [2]

3. Draw a line to match each the following terms with its definition. [3]

Centroid	A point found from the intersection of the three altitudes of a triangle.
Circumcentre	The “balance point” of a triangle, found at the intersection of the medians.
Orthocentre	The point that is equidistant from each vertex, found at the intersection of the perpendicular bisectors of the sides of a triangle.