Accelerated Precalculus Conics

**Conics: Circles – Homework**

**Write the given equations of circles in Standard Form and sketch a graph.**

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| 1)  | 2)  | 3)  |

**From the given information, write the equation of each circle in General Form**.

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| 4) Center (2, -1), radius = 4  | 5) Center (3, -2), and (-1, 1) is a point on the circle  | 6) Center (2, 3), and the line  is tangent to the circle  |
| 7) Find the equation of the line that is tangent to the circle:  at the point (6, 2).  | 8) Write the **General Form** of the equation of the circle with center at (0, 0) if a tangent line to the circle is given by. |

9) An earthquake was felt up to 81 miles from its epicenter. You are located 60 miles west and 45 miles south of the epicenter. (a) Let the epicenter be the point (0, 0). Find the standard equation that describes the outer boundary of the earthquake. (b) Would you have felt the earthquake? (c) Verify your answer to part b by graphing the equation of the boundary and plotting your location. (d) How far are you from the outer boundary?