Acc. Algebra

Unit 10 Review: Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. Given Parallelogram ABCD. SHOW that it is a rhombus using only the diagonals.

A(5,2); B(1,9); C(-3,2) D(1,-5)

1. You are hiking the mountains of Wyoming. Your hiking area is laid out on a grid, you are currently at (2,3). You can set up camp when you get to (14,8) You figure you can stop and have lunch when you are three-fifths to camp. What will be your position at lunch? (assume you are hiking a straight line from (2,3) to (14,8).
2. The coordinates of triangle ABC are A(0,0); B(12,6) and C(18,0) PROVE that side BC is NOT the altitude of the triangle.
3. The coordinates of two vertices for a regular hexagon are (1,3) and (2,5). Find the perimeter of the hexagon. (keep in terms of a radical)
4. PROVE that if the center of a circle is the origin and the circle has a diameter of 6, that point  is on the circle.
5. One side of a parallelogram has vertices A(3,2) and B(-1,4). If the third vertex is C(0,-3) then find the EQUATION of the side opposite AB.
6. Find the area of triangle PAT if P(2,5); A(3,3) and T(-1,1). Find the area of triangle PAT. (make sure you show me how you know which sides are the base and height.)
7. PROVE that triangle JEN is a right isosceles triangle (or is it) if J(1,-2); E(1,4) and N(2,7).

9. A contractor charges $155 for 3 hours work and $295 for seven hours work. Write an equation for how much the contractor charges for a job and then find the cost of a job requiring 12 hours. Assume a linear relationship.