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**Accelerated Geometry**

Unit I Test Review

**ANSWER ALL QUESTIONS. SHOW YOUR WORK ON SEPARATE SHEETS OF PAPERS:**

1. For the following points find the midpoint of, the distance of and the slope of , if A (-7, 5) and B (2, -4)

2. If A and B are endpoints and M is the midpoint. Find x and y by using the midpoint formula.

 A (24, y), B (x, -16), M (-13, 8)

3. Find the perimeter and area of the polygon whose vertices are given by

 (a) (-5, 4), (3, 1), and (0, 8) (b) (2, -5), (-7, -3), (-4, 3), and (1, 4)

4. Determine whether the triangle ABC is equilateral, scalene, isosceles or right triangle, if

 A (-7, 1), B ( 4, -2), C (-3, 5)

5. Determine whether the Quadrilateral ABCD is a parallelogram, rhombus, rectangle, or square if

 A(-2, 4) B(5, 5) C (6, -2) D (-1, -3)

6. Findthe equation of the circle in the following problems, if

 (a) center = (4, -5) and radius = 3

 (b) center = (-7, 2) and passing through the point (1, -4)

 (c) the points (1,-9) and (-5, -1 ) are end points of a diameter

 (d) the circle is tangent to the x-axis, and whose center is at (-3, -6)

 (e) the circle is tangent to the y-axis, and whose center is at (4, -7)

7. Find the center and radius of the following circles

(a)  (b)  (c)  (d) 

8. (a) Find the point that partitions the segment AB with the two endpoints A (-2, 1) and B (5, -4), in the ratio 2:3

 (b) Find the coordinates of point P that lies on the line segment, where M = (0, -2), Q = (-4, 2), and

 partitions the segment at a ratio of 3 to 4

9. Find the equation of the line

1. Passing through (-2, 5) and parallel to the line 
2. Passing through (4, -5) and perpendicular to the line 
3. Passing through (-2, 3) and parallel to the line which passes through (-1, 3), (0,-2)
4. Passing through (-5, 0) and perpendicular to the line which passes through (1, 2), (-4,0)

10. Find the equation of the tangent line which passes through the point

 (a) (-3, 4) on the circle 

 (b) (-6, -1) on the circle 