

Questions

1. Determine the center and radius of the circle and the sketch: $x^2 - 8x + y^2 - 10y = -5$.
2. Can you find two points such that their coordinates are integers and the distance between them is $10\sqrt{10}$? Explain.
3. Show that the midpoint of the hypotenuse of any right triangle is equidistant from all three vertices.