Continuous Assessment Test

Date: Monday, 15th December 2025
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Questions

1. Given the line segment joining two points $(3, -4)$ to $(-3, 4)$ as a diameter of a circle, find the equation of this circle.
2. Find the equation of the line passing through the points $(-3, 7)$ and $(5, -1)$.
3. Find the intersection points of the line $2x + y = 3$ with the circle $x^2 + y^2 = 10$.
4. Show that the point $(3, 4)$ lies inside the circle $x^2 + y^2 - 14x + 16y = 0$.
5. Given points $A(0, -3)$, $B(5, 0)$, $C(4, -3)$ and $D(-4, -1)$, show that $ABCD$ is a parallelogram.
6. The line through the points $(4, 3)$ and $(-6, 0)$ intersects the line through $(0, 0)$ and $(-1, 5)$. Find the intersection angles.
7. Find the midpoint of the points $A(-7, 12)$ and $B(11, 0)$.
8. Determine the distance between the pair of parallel lines $4x - 3y - 9 = 0$ and $4x - 3y - 24 = 0$.
9. Find the co-ordinates of the centre and the radius of the circle given its equation $(x - 4)^2 + y^2 = 13$.