Worksheet: Conic Sections

NIOS · Class 11 · Mathematics · 10 questions · 36 marks

Name: _____ Date: _____ Score: _____ / 36

Q1. Find the equation of a circle with centre (2, -3) and radius 4. *[2 marks]*

Q2. Find the centre and radius of the circle x^2+y^2-6x+4y-12=0. *[3 marks]*

Q3. Find the focus, directrix, and length of the latus rectum of y^2=12x. *[3 marks]*

Q4. Find the equation of the parabola with vertex at the origin, axis along the y-axis, and passing through (4, -2). *[3 marks]*

Q5. Find the equation of the ellipse with foci (+-3, 0) and semi-major axis a=5. *[4 marks]*

Q6. Find the coordinates of the foci, the eccentricity, and the latus rectum of the ellipse x^2/16+y^2/25=1. *[4 marks]*

Q7. Find the equation of the circle passing through (0,0) and making intercepts 4 and 6 on the coordinate axes. *[4 marks]*

Q8. For the hyperbola x^2/9-y^2/16=1, find the eccentricity, foci, and latus rectum. *[4 marks]*

Q9. Find the equation of the hyperbola with vertices (0, +-3) and foci (0, +-5). *[4 marks]*

Q10. Find the equation of the ellipse with major axis along the x-axis, passing through the points (4,3) and (-1,4). *[5 marks]*