

**Worksheet: Conic Sections (Circles, Ellipses, Parabolas, Hyperbolas)**

Uttar Pradesh State Board · Class 11 · Mathematics · 4 questions · 13 marks

Name: \_\_\_\_\_

Date: \_\_\_\_\_

Score: \_\_\_\_\_ / 13

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

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**Q2.** Find the focus, directrix, and length of latus rectum of  $y^2 = 12x$ . [3 marks]

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**Q3.** Find the equation of the ellipse with foci  $(\pm 3, 0)$  and  $a = 5$ . [4 marks]

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**Q4.** For the hyperbola  $x^2/9 - y^2/16 = 1$ , find eccentricity, foci, and equations of asymptotes. [4 marks]

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