

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

IB · 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  $\frac{x^2}{9} - \frac{y^2}{16} = 1$ , find eccentricity, foci, and equations of asymptotes. *[4 marks]*

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