

# Conic Sections Worksheet

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## 1 Exercises

- I. Find the vertex and foci of the parabola  $y = \frac{1}{2} - x - \frac{1}{2}x^2$ .
- II. Find the center, foci, and eccentricity of the ellipse  $4x^2 + y^2 - 8x + 4y - 8 = 0$ .
- III. Find the center, foci, and eccentricity of the hyperbola

$$\frac{x^2}{4} - \frac{y^2}{9} = 1.$$