

8.1, 8.2 & 8.3 Parabolas, Ellipses & Hyperbolas

Target 4A/4C/4E: Investigate the geometric properties of parabolas/ellipses/hyperbolas

Graphing Conic Sections By Hand Key Features List

Parabola	Ellipse	Hyperbola
<ol style="list-style-type: none"> Orientation Vertex (V) Focal length: p (distance from V to F or from V to D) Focus (F) Directrix (D) Focal width (Latus rectum) Axis of symmetry 	<ol style="list-style-type: none"> Orientation Semi-major axis: a (distance from C to either V_1 or V_2; a is the longest distance) Semi-minor axis: b (distance from Center to Co-vertices) Center (C) Vertices (V_1 and V_2) Foci (F_1 and F_2) (c is the distance from Center to either F_1 or F_2) Focal axis Eccentricity 	<ol style="list-style-type: none"> Orientation Semi-transverse axis: a (distance from C to either V_1 or V_2) Semi-conjugate axis: b (distance from Center to Co-vertices) Center (C) Vertices (V_1 and V_2) Asymptotes Foci (F_1 and F_2) (c is the distance from Center to either F_1 or F_2; c is the longest distance) Focal axis Eccentricity