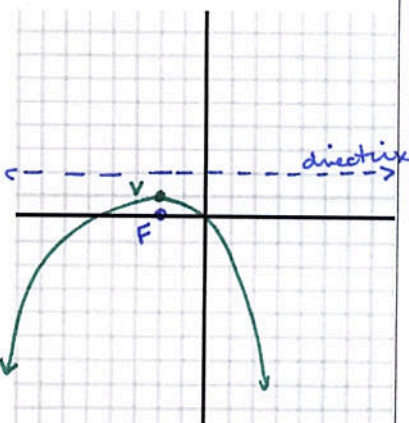
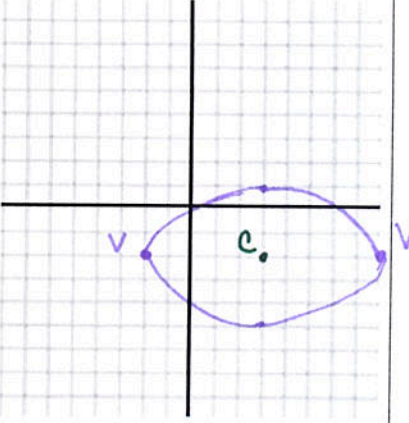



Row By Row A

Equation	Type of Conic	Key Features	Graph
$(x-h)^2 = 4p(y-k)$ $(x-2)^2 = 4(-1)(y-1)$ $(x+2)^2 = -4(y-1)$	Parabola	$p = -1$ Vertex: $(-2, 1)$ Opens down focus: $(-2, 0)$ directrix: $y = 2$ focal width = $ 4p $ $= 4(-1) $ $= 4$	
$\frac{(x-h)^2}{a^2} + \frac{(y-k)^2}{b^2} = 1$ $\frac{(x-3)^2}{5^2} + \frac{(y-2)^2}{3^2} = 1$ $\frac{(x-3)^2}{25} + \frac{(y+2)^2}{9} = 1$	Ellipse	Foci: $(-1, -2)$ & $(7, -2)$ Major axis length: 10 $a = 5$ center: $(3, -2)$ center to focus: $c = 4$ $a^2 = b^2 + c^2$ $5^2 = b^2 + 4^2$ $25 = b^2 + 16$ $9 = b^2$ $3 = b$	
$\frac{(x-h)^2}{a^2} - \frac{(y-k)^2}{b^2} = 1$ $\frac{(x-2)^2}{5^2} - \frac{(y-3)^2}{12^2} = 1$ $\frac{(x+2)^2}{25} - \frac{(y-3)^2}{144} = 1$	Hyperbola	Foci: $(-15, 3)$ & $(11, 3)$ Transverse axis length: 10 $a = 5$ center: $(-2, 3)$ vertices: $(3, 3)$ & $(-7, 3)$ center to focus: $c = 13$ $c^2 = a^2 + b^2$ $13^2 = 5^2 + b^2$ $169 = 25 + b^2$ $144 = b^2$ $12 = b$	

Equation	Type of Conic	Key Features	Graph
$(y-k)^2 = 4p(x-h)$ $(y-3)^2 = 4(4)(x-4)$ $(y+3)^2 = 16(x+4)$	Parabola	Focus: $(0, -3)$ Directrix: $x = -8$ $p = \frac{0 - (-8)}{2} = 4$ vertex: $(-4, -3)$ opens right focal width = 16 <small>$4p = 4(4)$</small>	
$\frac{(y-k)^2}{a^2} + \frac{(x-h)^2}{b^2} = 1$ $\frac{(y-1)^2}{13^2} + \frac{(x-1)^2}{12^2} = 1$ $\frac{(y+1)^2}{169} + \frac{(x-1)^2}{144} = 1$	Ellipse	Vertices: $(1, 12)$ & $(1, -14)$ Minor axis length: 24 $b = 12$ center: $(1, -1)$ center to vertex: $a = 13$	
$\frac{(y-k)^2}{a^2} - \frac{(x-h)^2}{b^2} = 1$ $\frac{(y-1)^2}{4^2} - \frac{(x-1)^2}{3^2} = 1$ $\frac{(y-1)^2}{16} - \frac{(x+1)^2}{9} = 1$	Hyperbola	Vertices: $(-1, 5)$ & $(1, -3)$ Conjugate axis length: 6 $b = 3$ center: $(-1, 1)$ center to focus vertex: $a = 4$	

Row By Row B

Equation	Type of Conic	Key Features	Graph
$(x-h)^2 = 4p(y-k)$ $(x-2)^2 = 4(-1)(y-1)$ $(x+2)^2 = -4(y-1)$	Parabola	Focus: $(-2,0)$ $p = \frac{0-2}{2} = -1$ Directrix: $y = 2$ vertex: $(-2,1)$ opens down focal width = $ 4p $ $= 4(-1)$ $= 4$	
$\frac{(x-h)^2}{a^2} + \frac{(y-k)^2}{b^2} = 1$ $\frac{(x-3)^2}{5^2} + \frac{(y-2)^2}{3^2} = 1$ $\frac{(x-3)^2}{25} + \frac{(y+2)^2}{9} = 1$	Ellipse	Vertices: $(-2, -2)$ & $(8, -2)$ Minor axis length: 6 center: $(3, 2)$ $b = 3$ center to vertex: $a = 5$	
$\frac{(x-h)^2}{a^2} - \frac{(y-k)^2}{b^2} = 1$ $\frac{(x-2)^2}{5^2} - \frac{(y-3)^2}{12^2} = 1$ $\frac{(x+2)^2}{25} - \frac{(y-3)^2}{144} = 1$	Hyperbola	Vertices: $(-7, 3)$ & $(3, 3)$ Conjugate axis length: 24 $b = 12$ center: $(-2, 3)$ center to vertex: $a = 5$	

Equation	Type of Conic	Key Features	Graph
$(y-k)^2 = 4p(x-h)$ $(y-3)^2 = 4(4)(x-4)$ $(y+3)^2 = 16(x+4)$	Parabola	$p = 4$ Vertex: $(-4, -3)$ Opens right Focus: $(0, -3)$ Directrix: $x = -8$ Focal width = $ 4p $ $= 4(4)$ $= 16$	
$\frac{(y-k)^2}{a^2} + \frac{(x-h)^2}{b^2} = 1$ $\frac{(y-1)^2}{13^2} + \frac{(x-1)^2}{12^2} = 1$ $\frac{(y+1)^2}{169} + \frac{(x-1)^2}{144} = 1$	Ellipse	Foci: $(1, 4)$ & $(1, -6)$ Major axis length: 26 $a = 13$ center: $(1, -1)$ center to focus: $c = 5$ $a^2 = b^2 + c^2$ $13^2 = b^2 + 5^2$ $169 = b^2 + 25$ $144 = b^2$ $12 = b$	
$\frac{(y-k)^2}{a^2} - \frac{(x-h)^2}{b^2} = 1$ $\frac{(y-1)^2}{4^2} - \frac{(x-1)^2}{3^2} = 1$ $\frac{(y-1)^2}{16} - \frac{(x+1)^2}{9} = 1$	Hyperbola	Foci: $(-1, -4)$ & $(-1, 6)$ Transverse axis length: 8 $a = 4$ vertices: $(-1, 5)$ & $(-1, 3)$ center: $(-1, 1)$ center to focus: $c = 5$ $c^2 = a^2 + b^2$ $5^2 = 4^2 + b^2$ $25 = 16 + b^2$ $9 = b^2$ $3 = b$	