circle

standard Form	$(x-h)^2 + (y-k)^2 = r^2$
	derived from distance formula
centre	(h, k)
radius	r

hyperbola

horizontal transverse axis (x coefficient > 0)	$(x-h)^2/a^2 - (y-k)^2/b^2 = 1$
vertices	(h ± a, k)
foci	(h ± c, k)
asymptote	y-k=±(b/a)(x-h)
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vertical transverse axis (y coefficient > 0)	$(y-k)^2/a^2 - (x-h)^2/b^2 = 1$
vertices	(h, k ± a)
foci	(h, k ± c)
asymptote	y-k=±(a/b)(x-h)
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transverse axis	passes through center vertex of both parabolas
a	distance from centre to each vertex
b	point on conjugate axis, not a point on hyperbola
centre	distance from center to each focus, $c^2=a^2+b^2$

parabola

vertex	(h, k)
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opens up/down	$(x-h)^2 = 4p(y-k)$
focus	(h, k+p)
directrix	y=k-p
opens up	p > 0
opens down	p < 0
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opens right/left	$(y-k)^2 = 4p(x-h)$
foci	(h+p, k)
directrix	x=h-p
opens right	p > 0
opens left	p < 0

ellipse

horizontal major axis (a > b)	$(x-h)^2/a^2 + (y-k)^2/b^2 = 1$
vertices	(h ± a, k)
foci	(h ± c, k)
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vertical major axis (b > a)	$(x-h)^2/b^2 + (y-k)^2/a^2 = 1$
vertices	(h, k ± a)
foci	(h, k ± c)
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major axis	longer axis
minor axis	shorter axis
a	distance from centre to each vertex
b	distance from center to end of minor axis
c	distance from center to each focus, $c^2=a^2-b^2$
length of minor axis	2a
length of major axis	2b