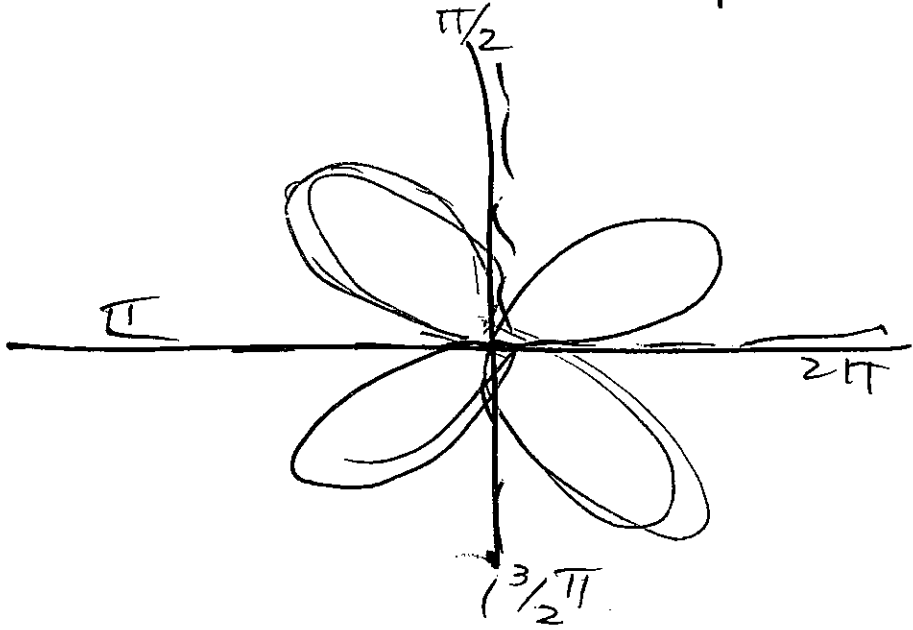
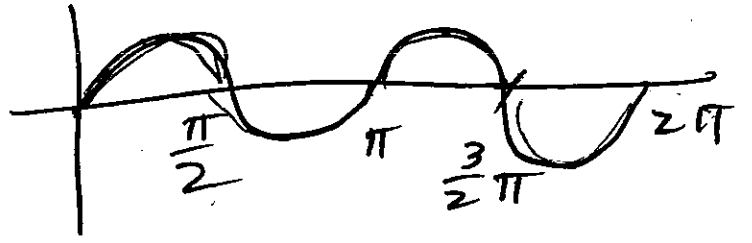


⑧ $r = \sin 2\theta$

$P = 2\pi/2 = \pi$

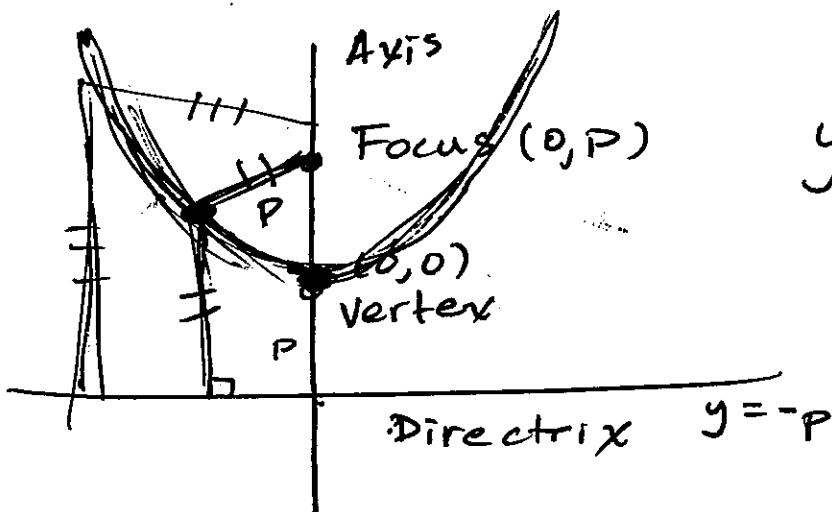


Conic Sections

Homework Online

Parabolas

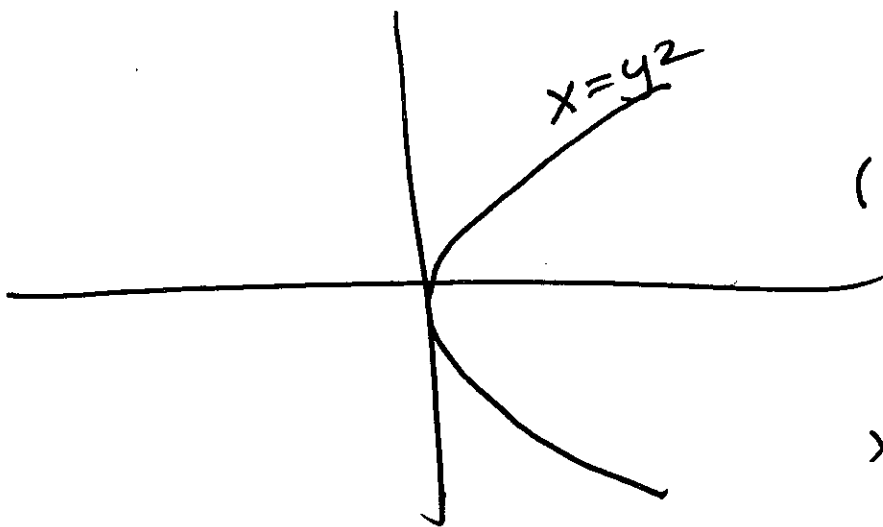
A parabola is the set of all points (x, y) in the plane that are equidistant from a fixed line, called a directrix, and a fixed point, called the focus.



$$y = \left(\frac{1}{4p}\right)x^2$$

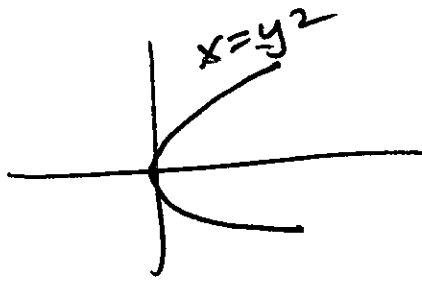
Standard Form: $y = a(x-h)^2 + k$
 $(y-k) = a(x-h)^2$
General Form: $y = ax^2 + bx + c$
vertex (h, k)
faces up if $a > 0$
down if $a < 0$.

Let's switch x and y ~~in the~~
for $y = x^2$. We get $x = y^2$.
~~Switching~~ Switching x & y
reflects the graph about $y = x$.



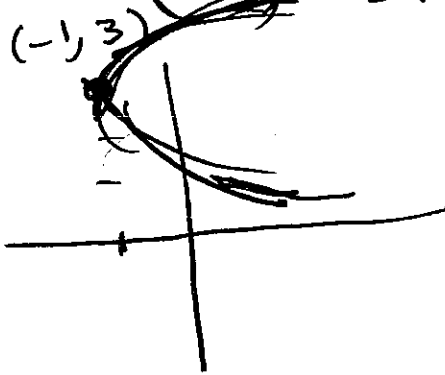
Standard
Form
 $(x-h) = a(y-k)^2$
vertex
 (h, k)
 $x = a(y-k)^2 + h$

EXAMPLE



2

sketch ~~$(x+1) = 2(y-3)^2$~~



vertex $(-1, 3)$