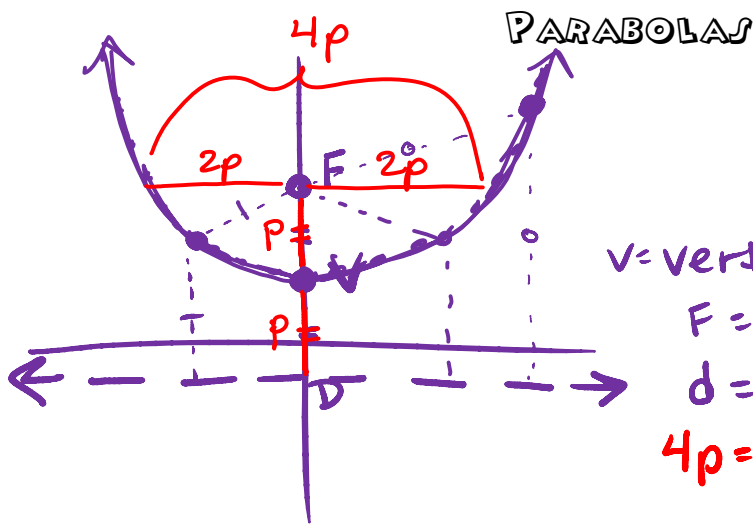


CONIC SECTIONS: DAY 6



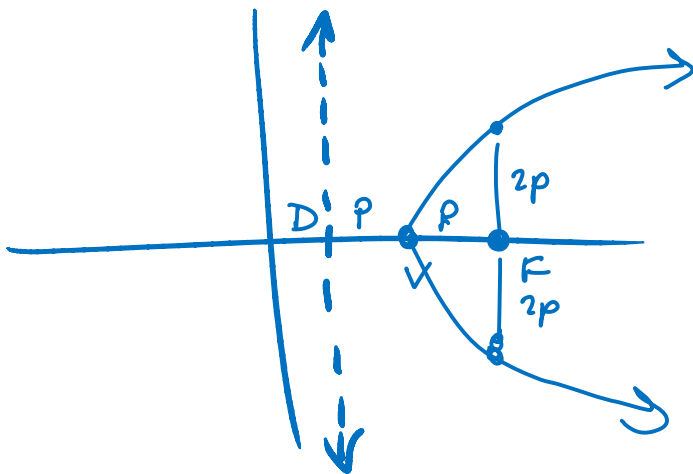
Parabola: all points that are equidistant from a line and a point not on the line

V = vertex (h, k)
 F = focal point
 d = directrix
 4p = focal width

Equations of a Parabola (Opening Up/Down) x^2 term

$$(x-h)^2 = 4p(y-k)$$

+4p opens up
-4p opens down



Equations of a Parabola (Opening Left/Right) y^2

$$(y-k)^2 = 4p(x-h)$$

+4p opens Right
-4p opens Left