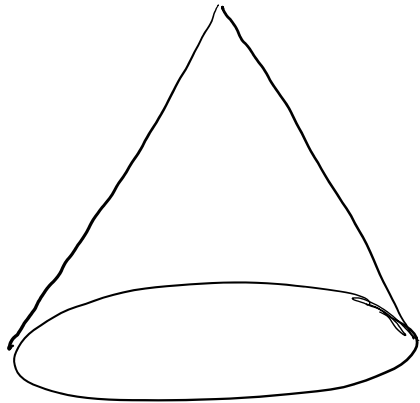


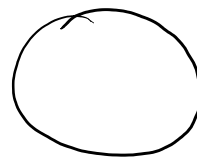
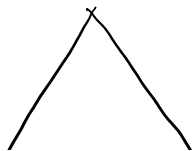
$$A = \frac{1}{2}(b_1 + b_2) \cdot h$$

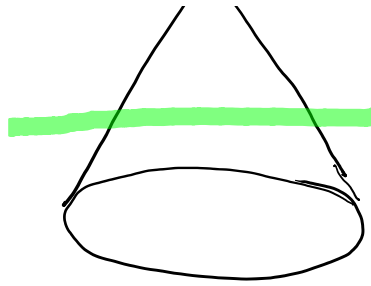
$b \cdot h$



Conic Sections

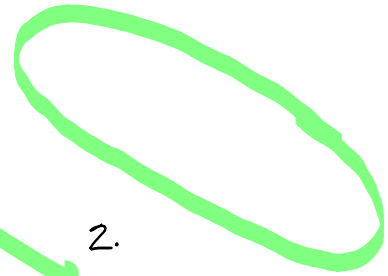
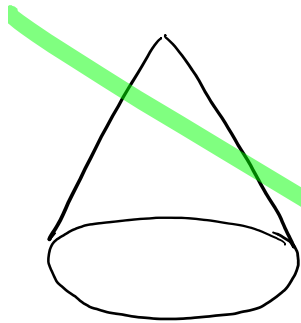
The face of the parts made when you slice through a cone.



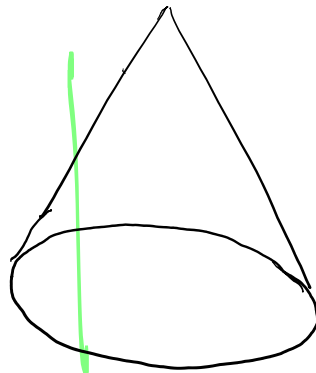


1. 
circle

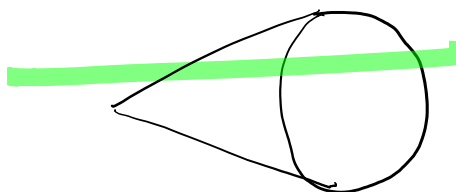
circle

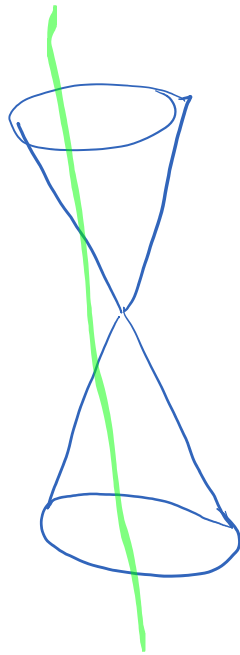


2. Ellipse



3. parabola





4.) hyperbola



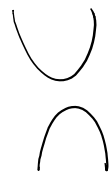
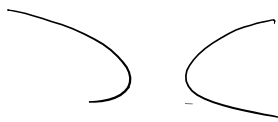
Circle



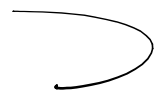
Ellipse



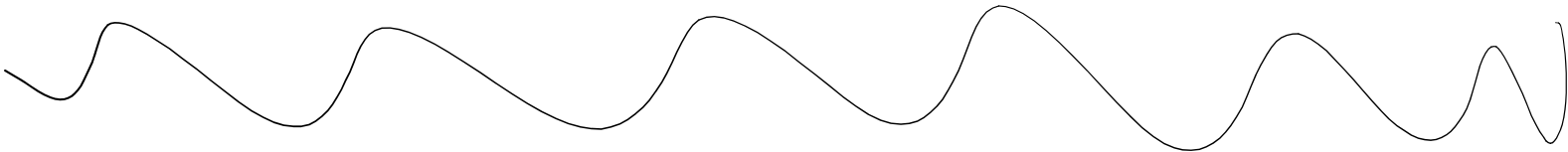
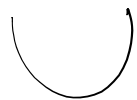
Hyperbola



Parabola a
 b



or



$$3x^2 - 7x + 3y^2 + 10y = 100$$

$$Ax^2 + Bx + Cy^2 + Dy = E$$

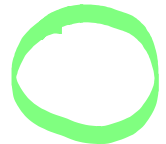
Standard Conic Form

Identify Conics.

A.) $3x^2 - 7x + 3y^2 + 10y = 100$

- 2 squared terms
- Same sign ++ or --
- Same coefficient

\implies Circle



B.) $3x^2 - 7x + 5y^2 + 10y = 100$

- 2 squared terms
- Same sign ++ or --
- different coefficient

\implies ellipse



C. $3x^2 - 7x - 3y^2 + 10y = 100$

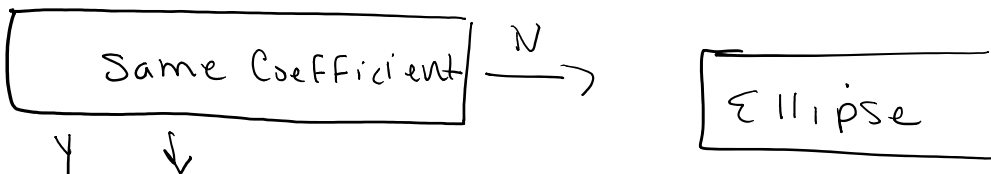
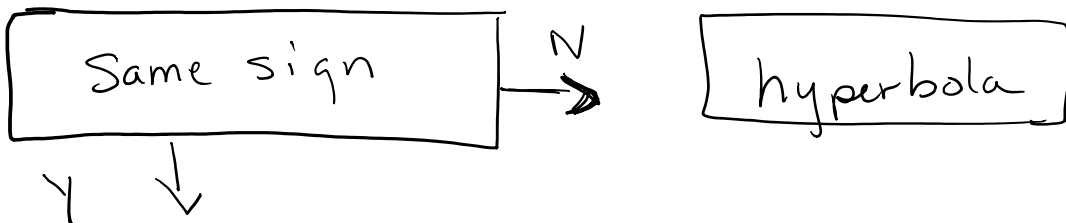
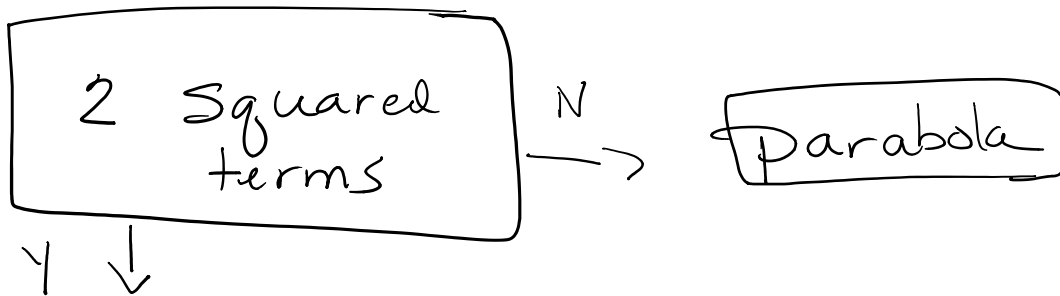
- 2 squared terms
- different signs

\Rightarrow hyperbola

D. $3x^2 - 7x - 3y = 100$

- only one squared term

\Rightarrow Parabola.



CIRCLE

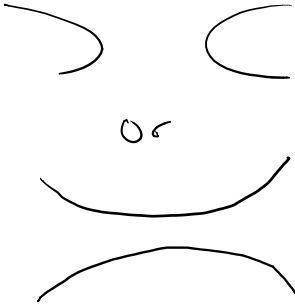
2 squares
Same sign
Same #

CIRCLE

2 squares
Same sign
different #

ellipse

2 squares
different
signs
Hyperbola



only
one
square
Parabola

