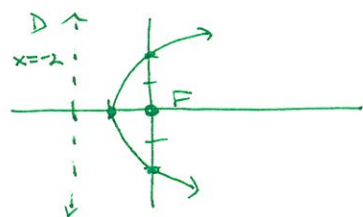
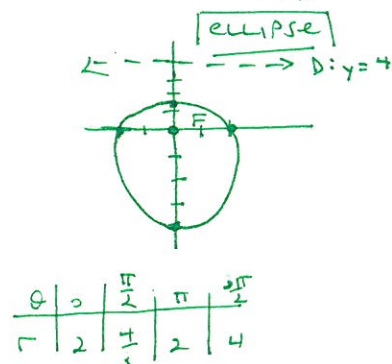


Identify each conic and sketch the graph.

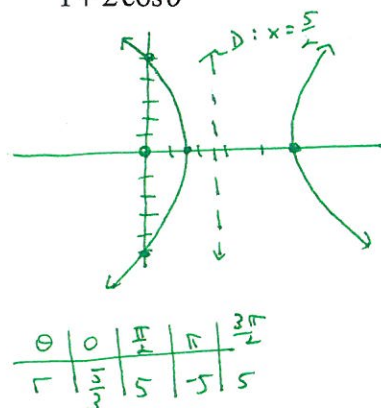
1. $r = \frac{2}{1 - \cos\theta}$ PARABOLA



2. $r = \frac{4}{2 + \sin\theta} = \frac{2}{1 + \frac{1}{2}\sin\theta}$ ELLIPSE



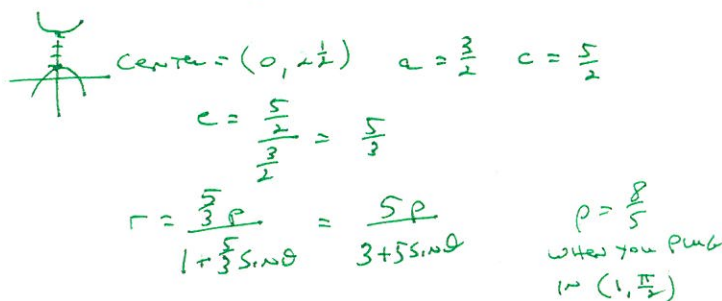
3. $r = \frac{5}{1 + 2\cos\theta}$ HYPERBOLA



Write a polar equation for each conic.

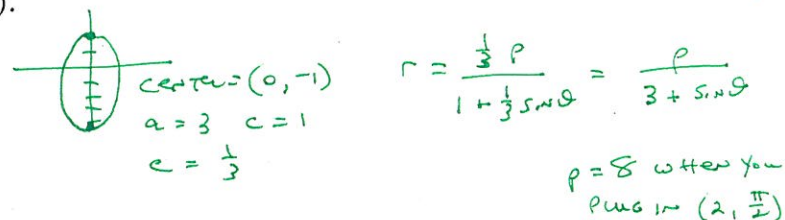
4. Hyperbola with vertices $(4, \frac{\pi}{2})$ and $(1, \frac{\pi}{2})$.

$r = \frac{8}{3 + 5\sin\theta}$ or $r = \frac{\frac{8}{3}}{1 + \frac{5}{3}\sin\theta}$

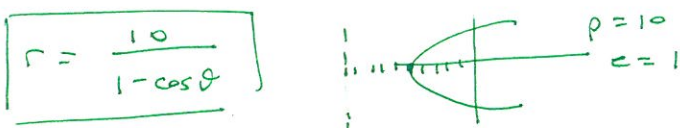


5. Ellipse with vertices $(2, \frac{\pi}{2})$ and $(4, \frac{3\pi}{2})$.

$r = \frac{8}{3 + \sin\theta}$ or $r = \frac{\frac{8}{3}}{1 + \frac{1}{3}\sin\theta}$



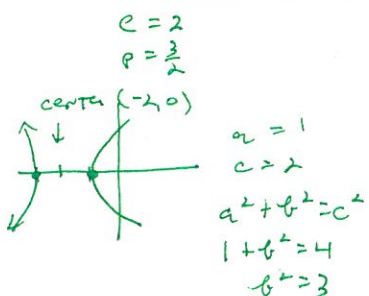
6. Parabola with vertex $(5, \pi)$.



Identify each of the following conics and write the equation in rectangular form.

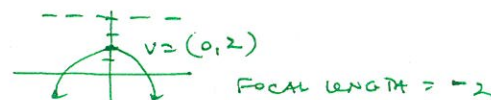
7. $r = \frac{3}{1 - 2\cos\theta}$

HYPERBOLA



$\frac{(x+2)^2}{1} - \frac{(y)^2}{3} = 1$

8. $r = \frac{12}{3 + 3\sin\theta} = \frac{4}{1 + \sin\theta}$ $e = 1$ PARABOLA
 $p = 4$



$x^2 = -8(y - 2)$