

Math 1920-03

April 18, 2016

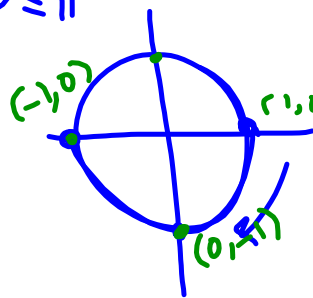
13.1 - Plane Curves

Eliminated

Ex: Find an equation in  $x$  and  $y$  whose graph contains the pts on  $C$  and sketch the graph.

12)  $x = \cos 2t$ ;  $-\pi \leq t \leq \pi$   
 $y = \sin t$

$t$	$x$	$y$
$-\pi$	1 ✓	0 ✓
$-\pi/2$	-1 ✓	-1 ✓
0	1 ✓	0 ✓
$\pi/2$	-1 ✓	1 ✓
$\pi$	1 ✓	0 ✓



$$\sin^2 t = \frac{1}{2}(1 - \cos 2t)$$

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

$$2y^2 = 1 - x \Rightarrow x = 1 - 2y^2$$

Parabola opening to the left.

