Appendix J3

#3

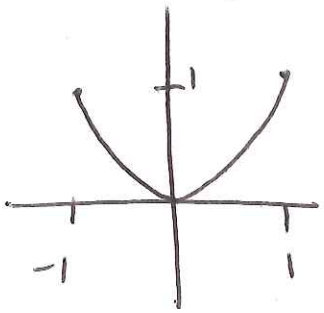
$X = \cos(t) \quad y = \cos^2(t)$

It looks like the cartesian equation should be

$$y = x^2$$

But this is not the case. since by the definition of x & y we see that $-1 \leq x \leq 1$ and $0 \leq y \leq 1$. So we only get a part of the parabola..

Sketch of the graph.



Cartesian equation

$y = x^2$ where $-1 \leq x \leq 1$

by plugging in values of t we see the graph oscillates.