

2. Let C be a curve whose parametric equations are:

$$x = 2 \sin\left(\frac{\pi t}{2}\right)$$

$$y = 3 \cos\left(\frac{\pi t}{2}\right)$$

$$0 \leq t \leq 2$$

- (a) Complete the following table of values for x and y (use a calculator to help, if you want), and plot the corresponding points of C .

t	x	y
0		
$\frac{1}{3}$		
$\frac{1}{2}$		
$\frac{2}{3}$		
1		

t	x	y
$\frac{4}{3}$		
$\frac{3}{2}$		
$\frac{5}{3}$		
2		

- (b) What sort of a curve is C ? Sketch it.

- (c) Write an equation for C that involves only x and y . What range of values do x and y take on?