

Cartesian $y = 3x^2$

Parametric $x = 2t$
 $y = t^2$

— CONVERT PARAMETRIC TO CARTESIAN

STEP 1: Make t subject of x equation $t = \frac{x}{2}$

STEP 2: Sub t into y equation $y = \left(\frac{x}{2}\right)^2 = \frac{x^2}{4}$

— PARAMETRIC AND TRIG IDENTITIES

$$x = \sin t + 2$$

$$y = \cos t - 3$$

use trig identity $\sin^2 t + \cos^2 t = 1$

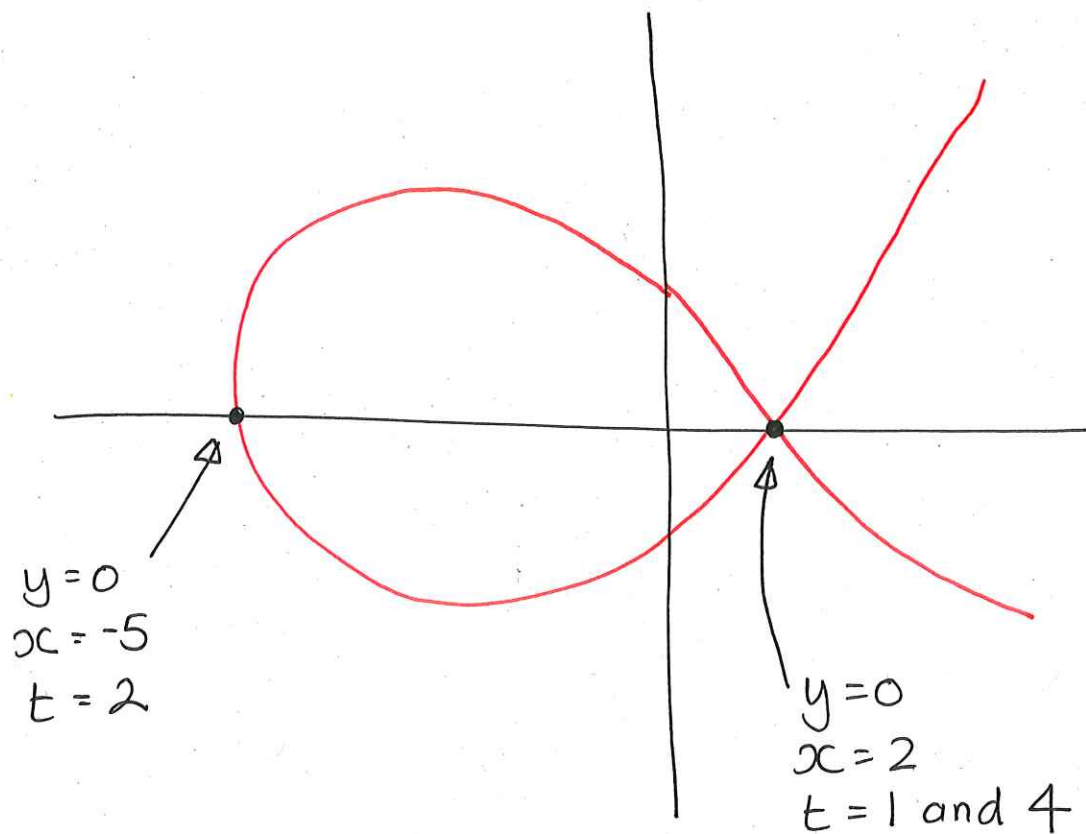
sub $\sin t = x - 2$ and $\cos t = y - 3$

$$(x - 2)^2 + (y - 3)^2 = 1$$

↑
produces an equation of a circle

DONT forget other identities such as $1 + \cot^2 t = \operatorname{cosec}^2 t$

- GRAPHING PARAMETRICS



Every co-ordinate will have a t value.

