Example 1:

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Plugging in various values for t gives:

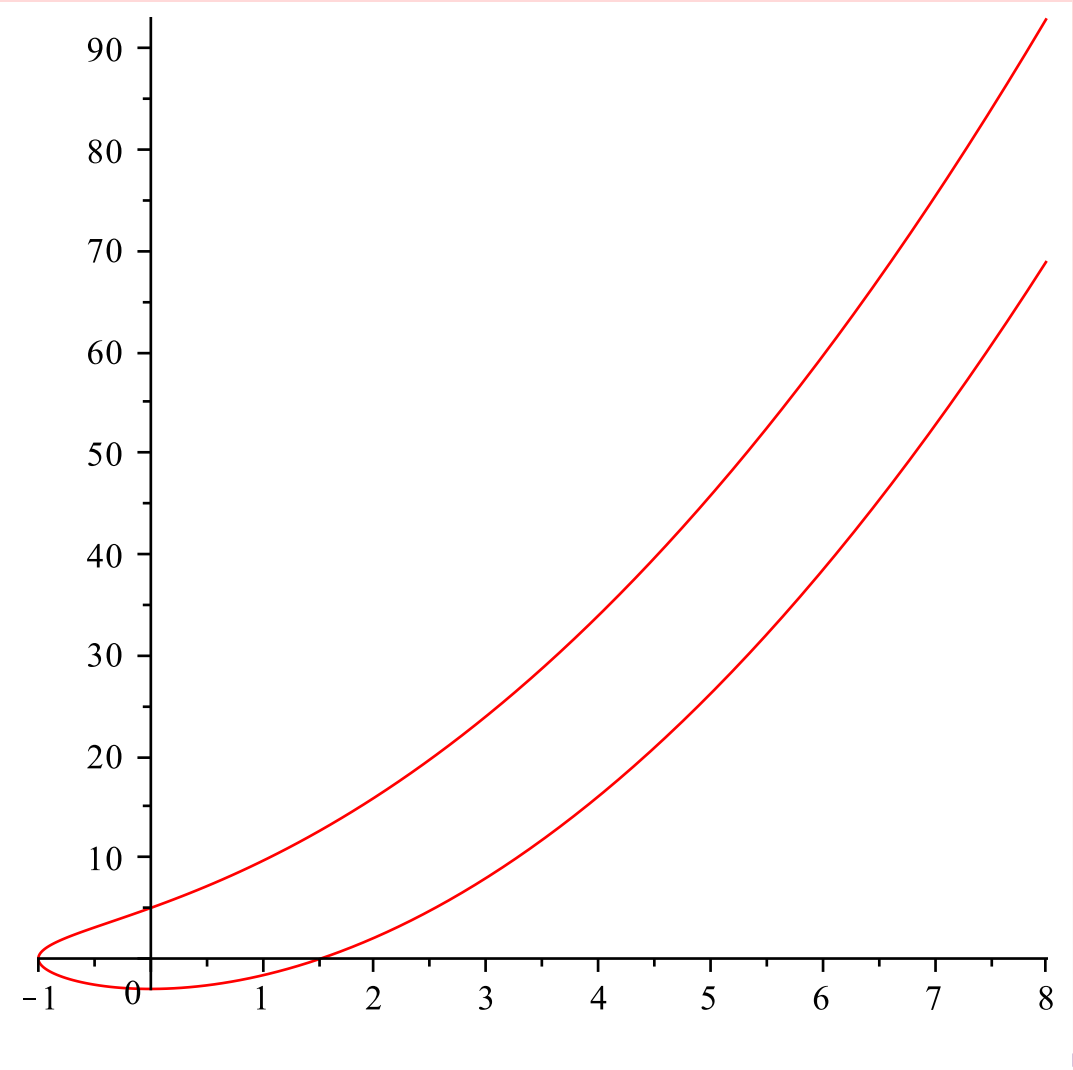
t	x	y
-3	8	93
-2	3	24
-1	0	5
0	-1	0
1	0	-3
2	3	8
3	8	69

(Check a few on your own!)

It turns out, the graph of the parametric equations

$$x(t) = t^2 - 1 \qquad y(t) = t^4 - 4t.$$

looks like

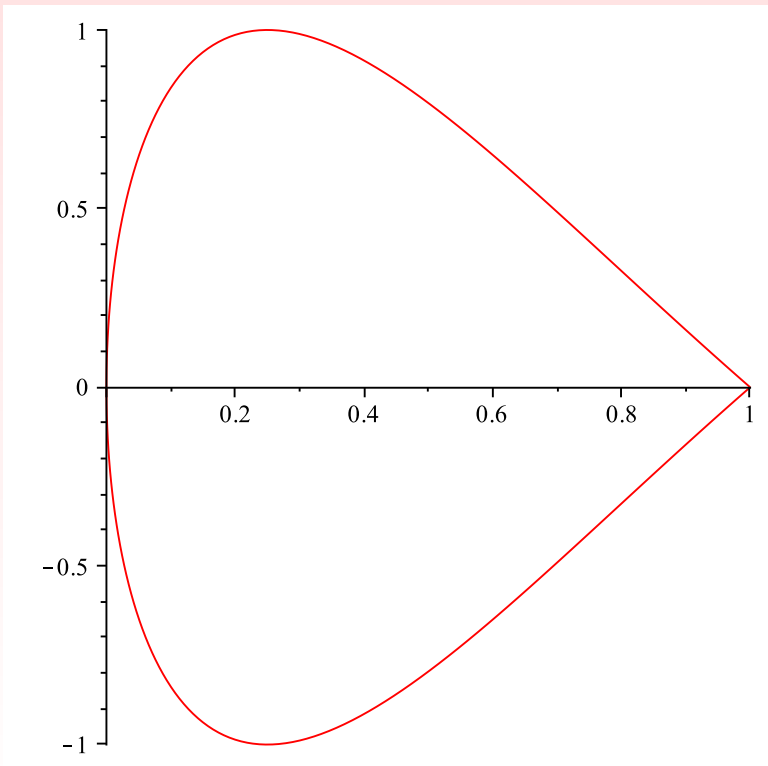


Consider the parametric equations

$$x(t) = t^2, y(t) = \sin(\pi t), t = -1..1$$

On the interval $[-1, 1]$,

- $x(t)$ goes from 1 to 0 and back up to 1 again
- $y(t)$ goes through exactly one period of sine, from 0 down to -1, up to 1, and back to 0 again.
- Thus the pair cycle through a loop exactly once.



The path is traced out clock-wise, starting and ending at the point $(1, 0)$