

Example 1:

Give a bug's position on a piece on the blackboard by specifying it's x and y coordinates as functions of time t :

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These are called **parametric equations**

t is the **parameter**.

Example 2:

Consider the parametric equations:

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

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!)