

# Implicit equation

An *implicit equation* is an equation which relates the variables involved. For example, the equation  $x^2 + y^2 = 4$  gives a relationship between  $x$  and  $y$ , even though it does not specify  $y$  explicitly in the form  $y = f(x)$ .

As this example shows, it may not be possible to convert an implicit equation into an equation of the form  $y = f(x)$  for some function  $f(x)$ , as the  $x$  values in the range  $-2 < x < 2$  each correspond to two values for  $y$ .