1. In this exercise we graph a relation and its inverse.
   First graph the relation defined parametrically by \( x = t, y = t^2 - 4 \) for \(-3 \leq t \leq 1\).
   Use the viewing window \([-10, 10] \times [-10, 10]\), with \( t \in [-3, 1] \) and TSTEP = 0.1.
   Trace the curve to see some points in the relation.

   Now give the parametric equations for the inverse relation:
   \( x = \ldots, y = \ldots, -3 \leq t \leq 1 \)

   Now graph the inverse (use \( X_2T \) and \( Y_2T \) so you can see both relations graphed at once). Trace this curve too. What is the geometric relationship between the two graphs?

2. Consider the relation \( R : y = x^2 - x \). This relation is actually a function; is the inverse relation of \( R \) a function?

   Now, let’s graph the inverse relation.

   The inverse relation \( R^{-1} \) has equation \( x = \ldots \).

   Solve this equation for \( y \):

   \( y = \ldots \)

   Is this a function?

   How many functions should we graph to get a graph of \( R^{-1} \)? \( \ldots \)

   Graph \( R : Y_1 = x^2 - x \) and

   \( Y_2 = \ldots \)

   \( R^{-1} : \)

   \( Y_3 = \ldots \)

   (Use the ZDECIMAL window - use FUNCTION mode!)