

# Strongly Implicit Procedure

## Problem

Domain of width  $L$  and height  $W$ . The boundary conditions are:

At  $x = 0$ :  $T = 0$

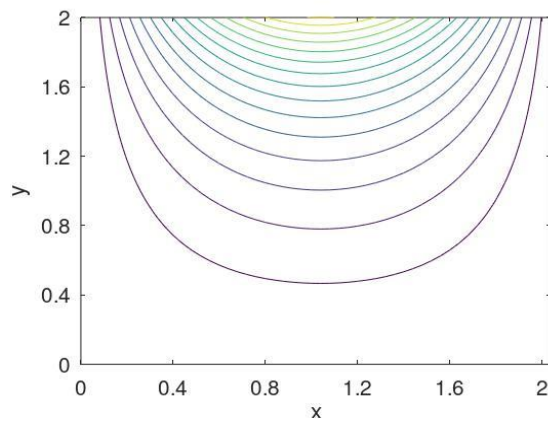
At  $x = L$ :  $T = 0$

At  $y = 0$ :  $T = 0$

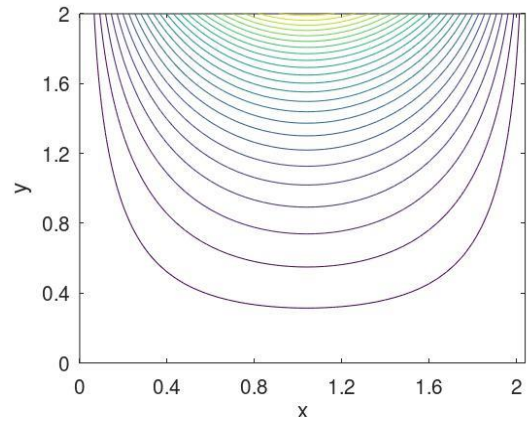
At  $y = W$ :  $T = T_m \sin(\pi x/L)$

Taking  $L = 2$  and  $W = 2$ . Take  $T_m = 2$ .

## Results

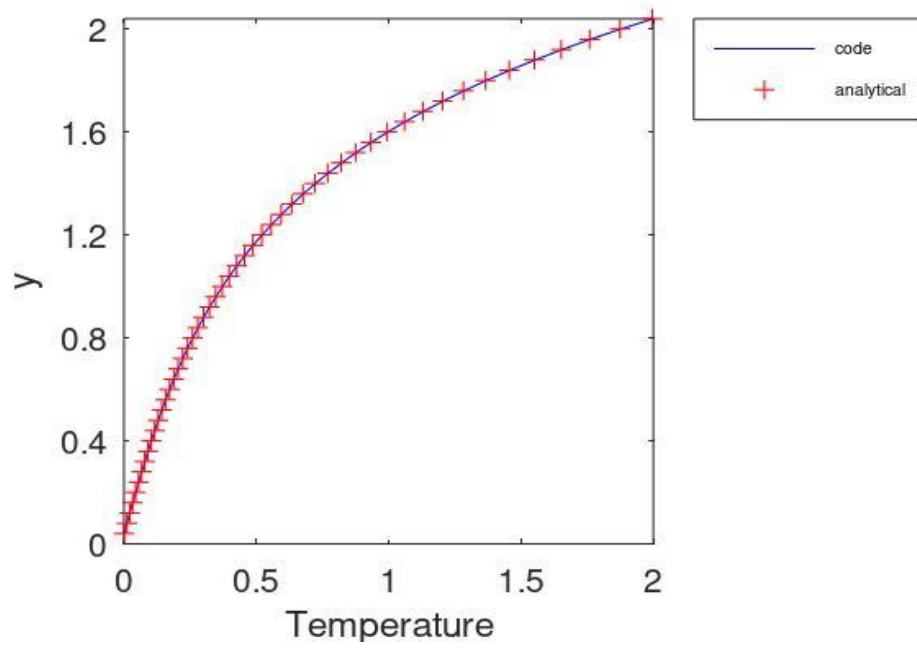


(a)Result from code

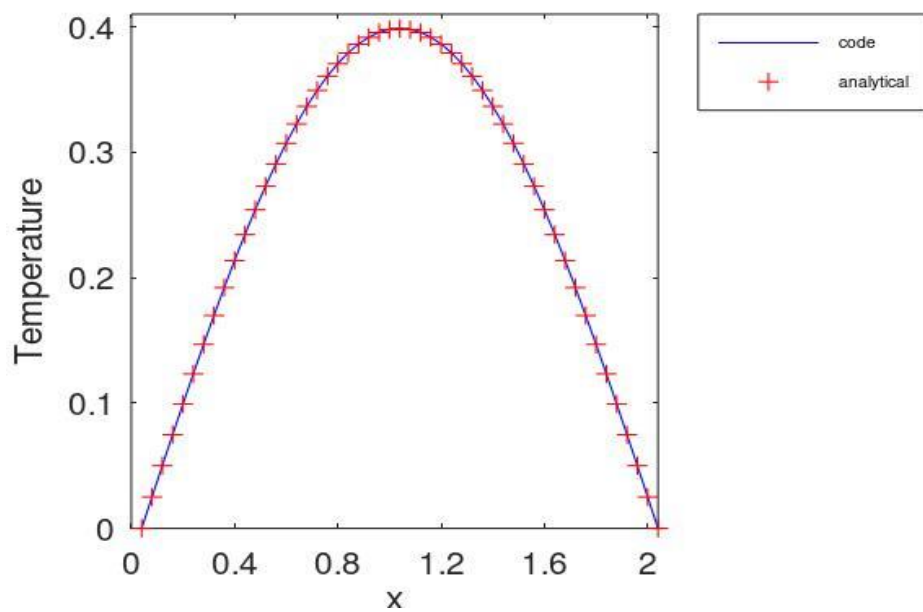


(b)Analytical

Contours of Temperature



Temperature variation along mid-vertical plane



Temperature variation along mid-horizontal plane