

# Algorithm: Divided Difference Table

- Read n
- // Read elements
- For i = 0 to (n-1) in steps of 1 do
  - Read x[i], y[i]
- End for
- // Create divided difference table
- For j = 0 to (n-2) in steps of 1 do
  - For j = 0 to (n-j-2) in steps of 1 do
    - If (j == 0) then
      - $d[i][j] = \frac{y[i+1] - y[i]}{x[i+1] - x[i]}$
    - Else
      - $d[i][j] = \frac{d[i+1][j-1] - d[i][j-1]}{x[i+j+1] - x[i]}$
  - End if
- End for
- End for
- END