

Divided difference Algorithm

1. Read n
2. for $j=0$ to $(n-1)$ in step of 1 do.
 Read $x[i], y[i], n$
 end for
3. for $j=0$ to $(n-2)$ in step of 1 do.
 for $k=0$ to $(n-k-2)$ in step of 1 do
 if $(k=0)$ then

$$d[i][j] = \frac{y[i+1] - y[i]}{x[i+1] - x[i]}$$

 else

$$d[i][j] = \frac{d[i+1][k-1] - d[i][k-1]}{x[x+y+1] - x[i]}$$

 end if
 end for
4. stop