

16MI31022

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Algorithm chart  
LAB → 3

Step 1 : start

Step 2 : Declared variables  $n, d, t$  and vectors  
[Revenue]  
 $Cc, Oc, R, ID, BT$   
[Capital cost] [operating cost] [year] [will you take tax]

Step 3 : Read float values of  $d, t$  and converted it to decimal format.

Step 4 : Read the vector inputs and filled all vector with input data.

Step 5 : Declared vectors  $Gp$  (Gross product profit),  $NP$  (Net profit),  $CF$  (cash flow).

Step 6 : For  $i = 0$  to  $n-1$   
calculated  $Gp$  :  $R[i] - Oc[i]$   
calculated  $NP$  : ~~if~~ If  $BT[i] = 1$  :  
If  $Gp[i] > 0$  :  
 $NP[i] = Gp[i] * (1 - t)$   
else :  
 $NP[i] = Gp[i]$

calculated  $CF$  :  $NP[i] - Cc[i]$

Step 7 : Declared  $NPV$  variable and initialised to 0

Step 8 : For  $i = 0$  to  $n-1$  :  
calculated  $NPV$  (Net present value) :  
 $NPV += CF[i] / (1 + d)^i$

Step 9 : Displayed the integer part of  $NPV$

Step 10 : END