

piran

PROGRAM PADA CONTOH 5.1

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REM PROGRAM PERHITUNGAN DISTRIBUSI SUHU
REM DALAM SUATU SLAB
REM OLEH ASMAH ROFIATI
REM NIM : J101855647
PRINT "HASIL PERHITUNGAN"
PRINT "DISTRIBUSI SUHU PADA LEMBARAN POLYSTERENE"
PRINT "=====
CLEAR : CLS
DIM SUHU(IL+100)
READ K,RHO,C,L,IL,DT,IT,N,TO,T1
DATA .645E-4,.055,.289,5.08,10,128,5,10,253,303
DX=L/IL
ALPHA=K/RHO/C
PHI=3.14159
TIME=0
TIME=ITIME
FOR I=0 TO IL
SUHU(I)=TO
NEXT I
PRINT
PRINT "WAKTU=";TIME;"DETIK"
PRINT "=====
FOR I=0 TO IL
PRINT "SUHU(";I;") = ";SUHU(I);"K"
NEXT I
PRINT
REM PERHITUNGAN DIMULAI
ITIME=ITIME+1
TIME=ITIME*DT
FOR I=0 TO IL
SUHU(I)=0
FOR J=1 TO N
X=I*DX
SUHU(I)=SUHU(I)+(1-(-1)^J)/J*SIN(J*PHI*X/L)*EXP(-J^2*PHI^2*ALPHA*TIME/L^2)
NEXT J
SUHU(I)=T1+(TO-T1)*(2/PHI)*SUHU(I)
NEXT I
PRINT
PRINT "WAKTU=";TIME;"DETIK"
PRINT "=====
FOR I=0 TO IL
PRINT "SUHU(";I;") = ";SUHU(I);"K"
NEXT I
IF ITIME<IT THEN 220
END
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