TRAPEZOIDAL RULE

To find the value of the integral of the function 1/1+x^2 in 4 steps using Trapezoidal rule.

ALGORITHM

Step 1 : Read a , b the limits of integration

Step 2 : If b<a then
c=a
a=b
b=c

Step 3: Read n , number of subintervals

Step 4: h=b-a/n

Step 5: x=a
y=f(x)
sum=y

Step 6: If count < n then
x=x+h
y=f(x)
sum=sum+2*y
count=count+1
goto step 6
else
x=x+h
y=f(x)
sum=sum+y
endif

Step 7: sum=h*sum/2

Step 8: write sum

Step 9: Stop