

```

program trapezio
double precision F,a,b,val,h,x
c REAL F,a,b,val,h,x
integer n,i
external f
WRITE(*,*) 'Entre com o valor de A:'
READ(*,*) a
WRITE(*,*) 'Entre com o valor de B:'
READ(*,*) b
WRITE(*,*) 'Entre com o numero n de subintervalos:'
READ(*,*) n
val=0.0
h=(b-a)/n
do i=1,n-1
  x=a+i*h
  val=val+f(x)*h
enddo
val=val+0.5*(f(a)+f(b))*h
write(*,*) 'Integral =',val
end
!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!
FUNCTION f(x)
DOUBLE PRECISION f,x
c REAL f,x
c f = (x**2)*exp(-x)
c f = sqrt(1+x)
c f = (x**2)*alog(x)
c f = x*sin(x)
c f = sqrt(1+x**2)
c f = (5-x)**0.333333333333333
c f = sqrt(4-x**2)
c f = alog(x**2+3)
c f = alog(x+1)
c f = cos(x**2 + 3)
c f = sin(x**3 + 2)
c f = exp(x**2 + 3)
c f = exp(x**3 + 2)
c f = exp(0.69314718*x**2)
c f = 2**(x**2)
f = sqrt(1+x)
END

```