

SNS COLLEGE OF ENGINEERING

Kurumbapalayam (Po), Coimbatore – 641 107



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	Double integrals using trapezordal &
Greneral for	of Traperoidal sulo:
81 fraise	1 rdy - he & sum of fat the four corners
+2 (Sun	of the values of if at the remaining the boundary) + 4 (sum of the values of
nodes on	the boundary) + 4 (sum of the value of
	at the interior nodesity
General for	m of Simpson sule:
	dudy = hk { Csum of the value of f at 4 com
+2(80	in of the values of fact the odd positions
	on the boundary except the corners
+ 4(8w	n of the values of & at the even partitions
	On the district
4 3 Sillom	of the values of fat the and position
4 8180	n of the values of of at even positions
	on the odd row of the matrix except boun. Yo
28010cm	of the values of of at odd position
+ K (Sur	of the values of & at aer position
7 10 1 6	on the even you of the matrix's



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1	0	0.5			
0			-1		
1	2			1.9	2
1		3	14	5	.5
	3	L	6	9	ti .
2	4	6	8	14	Li
	Here.	h=0.5	. 1	= 1	
£ (0.	00)	512+	5+14+	+4)+2	(3+4+5+1+8+4)
	LI	7			+4(1+6+9)}
= 10.	1257 (2037			1 - 1 - 1 - 1 - 1 - 1
		Julo	RNO	alunt	111 de 1
a h=k	=0.2				O HAHY CHOUS
3					0
	0	0.5)		
-					
7 =	(0.5)	(0.5)	3 (14	0.54	0.5+0.3333)
	+11 (0.6664	+ 0.6	14 499	0.4+0.4)+160.5)}
	0.027	13 (34	16 · 8	669)	
	= (0.) = 25.: 3 h= 2 yh 0.5 1 = (1)	= (0.125) (= 25.345. = 25.345. 3 h=k=0.5 4 h=k=0.5 1 0.5 1 0.5 1 0.5 1 0.5	= (0.5) (1) } (2+ = (0.125) (203) = 25.375. 3 Singson Jule 1 Singson Jule 1 0.66 1 0.66	= (0.135)(203) $= 25.375$ $= 2$	= (0.125) (203) = 25.375. 3 Simpson Jule evaluate 1 Simpson Jule evaluate 1 0.6667 0.5 1 1 0.5 0.11 0.3333 1 = (0.5) (0.5) \$ (1+0.5+6 1 0.5 0.11 0.3333 1 = (0.6667 + 0.6667 + 6 +11 (0.6667 + 0.6667 + 6 = (0.00778) [118.8669)

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3. Evaluate of 1 (1 +y) 2 clar dry taking h=k=0.5

by both trapezordal scale & simpson scale.

4. Evaluate 1.11 j.11 + andy using trapezordal rule
and simpson scale. Verity your result by
   actual integration.
  5 - Evaluate 12 14 1 aixdy by trapezoidal scule
     solv. 4/4 1.0 1.25 1.5 1.75 2.0
              1.0 0.5 Онин Он 0.3636 0.3333
              1.25 0.444 0.4 0.3634 0.3333 0.3077
              1.5 0.4 0.3636 0.3333 0.3077 0.2851
              1.75 0.13636 0.3333 0.3077 0.2857 0.2667
              2.0 0.3333 0.3077 0.2457 0.267 0.25
       1 = (0.25) (0.25) S (0.5+0.3333+0.25+0.3333)
             +2(0.4+0.4+0.2657 +0.2657)
             +4 (0.3636 +0.414+0.11444+0.3636+0.3077
                40.2667 40.2667 40.3077 ) 44 (0.3333 )
            4810.3636403077)+8(0.3636+0.3077)
                   416 (0.47 0.3333+0.2857+0.33333
             = 0.3392/
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