

Rhomborg Integration PROGRAM LISTING

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☐ 67 ☐ 97 ☒ 41C

STEP/ LINE	KEY ENTRY	KEY CODE (67/97 only)	COMMENTS	STEP/ LINE	KEY ENTRY	KEY CODE (67/97 only)	COMMENTS
01	*LBL TINT			51	+		Set up control number
	AON				.001		for accessing registers
	FUNCTION NAME?				*		containing intermediate
	PROMPT				STO + 04		Rhomborg results.
	AOFF				1		$R_{04} \leftarrow 11.011 + .001 + C(R_{08})$
	ASTD 05				STO 06		R_{06} is for generating
	a? b				RCL 00		successive Rhomborg approximations
	PROMPT				RCL 02		Compute Trapezoidal Area
10	STO 02				*		$\text{Area} = \Delta x \sum f(x_i)$
	X $\geq$ Y			60	GTO 05		
	STO 01				*LBL 04		
	X $\geq$ Y RCL 2				RCL 06		
	XEQ IND 05				4		
	STO 00				*		
	RCL 01				STO 06		
	STO -2				*		
	XEQ IND 05				+		
	STO +00				RCL 06		
20	2				DSE X		
	STO +00			70	/		
	CLX				*LBL 05		
	STO 03				X $\geq$ IND 04		
	GTO 03				CHS		
	*LBL 01				RCL IND 04		
	1				VIEW X		
	STO +03				ISG 04		
	2				GTO 04		
	STO +02				STOP		
	RCL 03				GTO 01		
30	Y*			80			
	ADV						
	VIEW X						
	.99998						
	-						
	STO 04						
	*LBL 02						
	RCL 04						
	INT						
40	RCL 02						
	*						
	RCL 01						
	+						
	XEQ IND 05						
	STO +00						
	DSE 04						
	GTO 02						
	*LBL 03						
	11						
	STO 04						
50	RCL 03			00			

At *Romberg* *Notes*

```
01+LBL "RINT"  
02 "afb"  
03 PROMPT  
04 STO 02  
05 X<Y  
06 STO 01  
07 RCL 02  
08 XEQ "S"  
09 STO 00  
10+LBL "SINT"  
11 RCL 01  
12 ST- 02  
13 XEQ "S"  
14 ST+ 00  
15 2  
16 ST/ 00  
17 CLX  
18 STO 03  
19 STO 10  
20 GTO 03  
21+LBL 01  
22 1  
23 ST+ 03  
24 2  
25 ST/ 02  
26 RCL 03  
27 Y↑X  
28 ADV  
29 FIX 0  
30 VIEW X  
31 .99998  
32 -  
33 STO 04  
34+LBL 02  
35 RCL 04  
36 INT  
37 RCL 02  
38 *  
39 RCL 01  
40 +  
41 XEQ "S"  
42 ST+ 00  
43 DSE 04  
44 GTO 02
```

45+LBL 03
46 11
47 STO 04
48 RCL 03
49 +
50 .001
51 *
52 ST+ 04
53 1
54 STO 06
55 RCL 00
56 RCL 02
57 *
58 SCI 3
59 GTO 05
60+LBL 04
61 RCL 06
62 4
63 *
64 STO 06
65 *
66 +
67 RCL 06
68 DSE X
69 /
70+LBL 05
71 X<> IND 04
72 CHS
73 RCL IND 04
74 ISG 04
75 GTO 04
76 X<> 10 *store new approx*
77 X-0? *retrieve old approx*
78 GTO 01
79 VIEW 10
80 RCL 10
81 ZCH
82 ABS
83 .1
84 X<=Y?
85 GTO 01
86 TONE 7
87 TONE 5
88 RCL 10
89 SF 21
90 FS? 55
91 PRX
92 RTH
93 END