Name: Nafinan Leo

Id : 20-42195-1

Section: M2.0 0.00 \$000.0 \$000.0 0 1000

Assignment 1

189 = 0.0.2, 0.4, 0.6, 0.8 L

MRS = 0.2,09 0.6,08.1 1.a) je-3x dx (n=9), F.D, 20, 2.0, 1.0 = 29m

Here, a=0, b=2, n=4 Shall below a=0. a=0, b=2, n=4 Shall be a=0.

		, ,		Λ A		10	
	1-RS 00 0) C		est(+)	J. W	ight 1/s	mide	lle
1 1-1	[Xp-1, Xn]	Cr	f(Cr)	Cn	f(Cn)	Cr	of (Cp)
7	3,0.8	80(8	00010) 2	3.5	0.2231	0.25	0.472
	0.6,1	0.5	0.2231	1	0.0498	0.75	0.105
	1, 1.5	1	0.0498	ુદ્ધ ે	0.0117	1.25	0.024
	1.6,2	1.5	0.0111	020	0.0025	1,75	0.005
	Éf(Cn)	(6)	1.284	~	0.2865		0.606
	Ax*Ef(Cn)		0.642		0.19325	# 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	0.303
							400.00

Trapezoidal= (0.5 [1+2(0.2231)+2(0.0498)+2(0.0111)+ Se-3x Jxx 0.0026] 7 € 0.3926 88880 ≈ 0.393 O at 10800 CAnswer) b) $\int_{1}^{2} \frac{1}{\sqrt{x^3+1}} dx$ (n=6) 15,102 (D) 8 3 15102 Here, a=1, b=7, n=6 +2(0.06+8)+6=53)

U by d all sac.	mine / k	3 5	<i>T</i> •••				Á
RS [Xp-1, Xp]	- 30 m.	FE TO SERVICE STATE OF THE SER	nig	ht - joh	1 Charles	201	-
1,2	Cp.	f(Cn)	Cn	f(Cn)	Chil	adle f(Cr)	-
2,3	1	0.7071	2	0:3333	1.6	0.978	-
3,4	2	0.3333	30	0:1889	2.5	0.245	
	3	0.1889	421	0.1240	3.5	0.151	
9,5	4	9.1240	15	0.0891			
5,6	5	0.0891	6		4.5	0.104	
6,7	6	0.0678		0.0678	5.5	0.77	n**
Z f (G ₀)	- 6		370	0.05.39	16.5	0.060	
)	1.5102	, 4.	0.857[+	OX V	1.808	
4x* 红fcn		1.5102	*	0.857	10, 2	1 000	
	• 7	7773				1.808	

Trapezoidal,

$$\int_{1}^{7} \frac{1}{\sqrt{x^3+1}}$$

$$dx \approx \frac{1}{2} \left[0.7671 + 2(0.3333) + \frac{1}{2} \right]$$

a = 1, b = 7, n = 6

$$2(0.1889) + 2(0.1240) + 2(0.0894) + 2(0.0678) + 0.0539$$

C)
$$\int_{3}^{h} \frac{1}{1-\ln x} dx! (\hat{n}=4) \times h(\hat{x}) = 0$$

Here, a=3, b=5; n=4

		1. 2.		and the second second			
RS bim	and the same of the same	lest	rig	ht	middle		
[24p-1, Xp]	Cr	f (Cn)	Cr	f (Cr)	Ch	f (Ch)	
03,3,500	130	-10.141	3.5	-3.956	3.25	-5.59.7	
3.5,400	3.57	-3.956	400	2- 581	3.75	-3.108	
14,4.60	48 1	-2.581	4.5	_1.989	4.25	-2.238	
19.6,50	4.5	-1.984	5	-1.641	4.75	-1-792	
Zf(Cr)		-78.662	179	-10.162	3810	-12.735	
Ax* 至于(G)		-9.331		-5.081		-6.367 T	

Trapezoidal
$$\int_{-1}^{5} \frac{1}{4x} \propto \frac{0.5}{2} \left[-10.141 + 2(-3.956) + \frac{1}{2} \left(-2.581 \right) + 2 \left(-1.984 \right) - 1.641 \right]$$

\$10.0+(L(10.0) c+(+800.02c-7.21

(491/21A) 4800.0 CAnswer)

Here, a=0, b=1, n=9

$$4x = \frac{1-0}{9} = 0.25$$

	The second secon							
	RS		1674		night		middle	
1	[X,1,Xn]	Ch	f (Cn)	Cn	5(Cr)	Cr	f(Cn)	
	0,0.25	.0	0 6 8	0.25	10.0049		0.0022	
	0.25,0.50	0.25	10001	०.५०	0.0087	0.375	00065	
The state of the s	0.50,0.75	0.50	0.0087	0.75	0.0131	0.625	0.0109	
	0.75, 1	0.75	0.01 31	100	0.0174	0.875	0.0153	
	2 f@		0.0262		0.0409	Int	0.0349	
	Ax* ES(Ch)		0.000655	162	0.0102	1977	0.00087	
		180	1.00	10		-		

Trapezoidal

sin(x) cas (x2) dx = 0.25 [0+2(0.0094)+ 2(0.0087)+2(0.0731)+0.01747

(19W20A) \$\sim 0.0087 (Answer)

$$e) \int_{0}^{1} \sin(x^{2}) dx (n=5)$$

$$4x = \frac{1-0}{5} = 0.2$$

0								
Rs [Xr-1, Xn]	-	lest		right		iddle		
[N/21, N/6]	1 C	n f(Cn)	Cp	f(Cn)	Cr	f(Cn)		
0,0.2	0	0	0.2		0.1	0.00017		
0,2,0.4	0.	2 0.0007	0.9	0.0028	0.3	0.00157		
0.4,0.6	0.9	0.0028	0.6	0.0063	0.5	0.00936		
0.6,0.8	0.6	0.0663	0-8	0.0112	0.7	0.00855		
0.8,1	0.8	0.0112	1	0.0174	0.9	0.1414		
Źf(Cn)		0.021		0.0389	5	0.15605		
Anx Ef(Cn)		0.00042		0.000768		0.03121		

Trapezoidal
$$\int_{0}^{1} \sin(x^2) dx \simeq \frac{0.2}{2} \left[0 + 2(0.0007) + 2(0.0028) + 2(0.0063) + 2(0.0112) + 0.0174 \right]$$

$$\approx$$
 0.0006 (Answer)