0

CENTRAL DIFFERENCE INTERPOLATION

0:- Find ug if u=14, u=24, u8=32

Sol :-

4q=?

X	twi	DE(X)	R5+10)	P3(1X)	D4(X)
0	144-3	104	j		
4	244-1	1034-9	19 BJ-	2 5 3	
8	3240	3 DY-1	-584-	-3 3 -2	THE ATY
12	35 Y,	2010	1 2 B24	+21	1
16	1407=	1 - 24+		0	

Gauss Forwards -

f(a+hu) = Yo + U(DYO) + U(U-1)(DZY-1) +

(4+1)(4)(4-1)(13/-1)+

31

(u+1) (u)(u-1)(y-2) 14

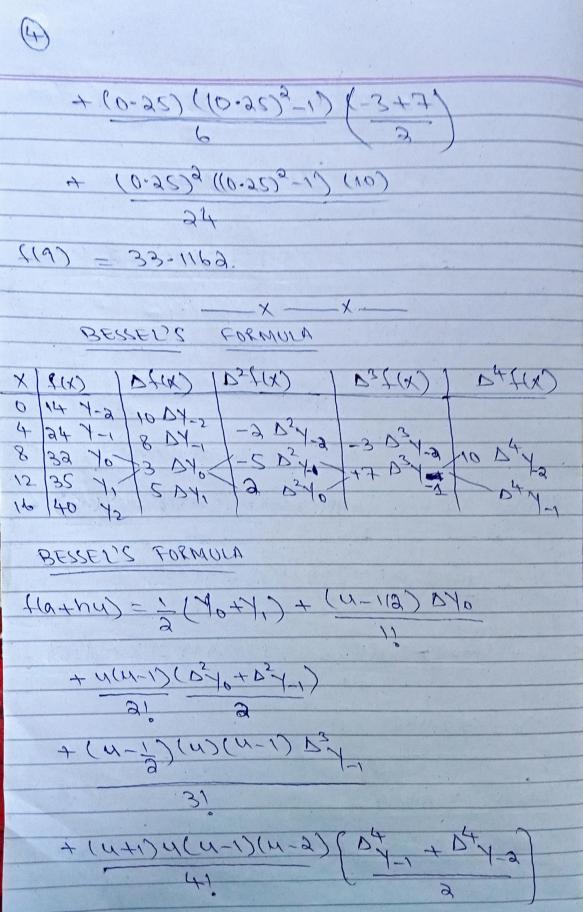
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Gauss Backward: ==

(2) f(a+ha) = 1/0 + 4 (DY-1) + 4(4+1)(02Y-1) + (u+1)(n)(u+1)(b3/2) + (n+1)(n)(n+1)(n+2) (D+1-2) Stirling Formula: gauss Forward + guass backund stirling formula :tox+40)= 10+ 11 (210+ D1-1) + 13 231-1 + 11(12-1) (D3/-1+D3/-2) + M3 (M3-1) (V4) Gauss Forward £(3) = 5 a+hu=9, a=8, h=4 8+44=9 1420.25 44-9-8

11 = 39 + (0.25)(3) + (0.25-1)(-5) + (0.25+1)(0.25)(0.25-1)(7) + (0.52+1)(0.52)(0.52-1)(0.52-9)(10) (19) = 33.1162 Gauss Backward; t(3)=3 0=8 4=4 4=0.52 t(d) = 39 + (0.52)(8) + (0.32+1)(0.92)(-2) + (0.52-1)(0.52)(0.52+1)(-3) + (0.52) (0.52) (0.52+1) (0.52+9) (10) f(9) = 33.116d Starling Formula:

t(d)=39+ 0-92(8+3)+ (0-52), (-2)



$$\frac{1}{(19)} = 33 \cdot 1163$$

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