	Me, 11 for sport grown of put M: Hesh Character of July (1)
The first time that the first time to	LECTURE 6: CONTOUR INTEGRIES FUNCION S OCTOBER
eriteria e marcia in troncato destruta e de destinga e estanta del proposito de la composito de la composito de	NEW VERS ONUNE
	HOMEWORK HINTS
✓	· WHEN CONFUSED: try explicit case, eg N=3
WINY VD THESE!	· PROPIEMS 132
UNDERSOND CALCULUS AS	_
UN. ALG.	$\frac{d^2}{dx^2}$
NS GUES	
A CONFICENCE	
UNDERSTAM	
and have a processory to the state of the st	OVER A BIG MARIX
** 1888 m² j rhumnya vilandi ya shanbadi sasani daba sana sana nasa daba da a ana mininga	-2
Primer val streets a mont to an extra large and making gripping they willy happing large large and control pri	
	1-21
	by a 2
66 de 1944 - 1944 - 1944 de 19	
он distribution (Minimum (view mension mension) и пот выполнения и пот выполнения в почет в почет двуго до до д	
од том и над том на вен над не на	BOUNDARY CONDITIONS CAN CHANGE THS!
	12 122 (-2) > - · ← (-2f, +fz)
	1 -2 1 = f2-2f, +(f0)
Principle of the control of management that necessary and the control of the cont	wifa=0
a "makendikan" pi ilipelga (1986-1986) da saari ili ilaa makan murka maken maken saara sambapunkan jagagisan day jagagisa	COMPARE TO 10 "1-21" WI CONDITION
rt disconnections and a series at the payment of September 1995; and all the payments are used as a series to be	
	1000 E WHIE 1St BELL OWEN'T MATTER
BUT	WIPUT I BUSH INDENT (WALLOW
7U8 0+19 cerson	the (1,-2,1) is prostoned
······································	$1 - 2 $ $1 \rightarrow no BC$

on the topic of 1c:
WE ESTABLISHED THAT 10 63 York W NO BC
,
So what is the sol to PM(x)=0
in the boundary condition?
f(x) = ax + b = 2 2 Southons
WHAT IS NULL SPACE OF THE MATRIX REP OF 374x2?
fin - 2f; +fin =0
1
RECURRENCE RELATION WI CONST COEF.
BO ONE GUESS IS IN = (const)" = 2"
[from function point of new Kind of went]
9 n+1 - 5d, - 9,-1 = 9,-1 (85-52+1)
$= \alpha_{u-1} (g-1)_s = 0$
$\Rightarrow \alpha = 1 + \alpha = 1 $
that's just one sol.]
(d=(a)=b
RATHER THAN USING RECURPENCE WE CAN EVESS
THE STHER SOUTION: [FN = N] () (FG) = ax

and the second of the second o

OTHER BC WE CONSIDERED IS 115: PERUSDIC. WHAT DOES THIS MEAN?
No Bayndash
Extending should and one.
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$
1 -2 1 fz fz fy fy fy
(f ₃)-2f ₁ +f ₂
f ₁ -2f ₂ -f ₃ = f ₂ -2f ₃ -f ₁
3.0.2

	2b) How to vority (T-1)?
	5 (T-1) is Tik = 8ix
	quer
-	PATITIFN ALONG DIABONAT
	Tik = Sim - 2 Six + Sk(j+1)
	HAVE TO BE CAPEFUL @ EDGES.
	2a) BC? T, is DIPPORTS! (ley 1a)
	Odydx? WHAT TO MAKE OF THIS? THE TO INTERPRET AS -(1 -2 1)
	(> expect (-fp-1 2fk - fx+1)
	gives above value
	(from - fr = 0) = 2 when from = fr
	NEO WANY!

	(120) ASKS TO COMPARE TO OR	MUUNITORC
	GREEN'S PUNCTIONS	
	C>-(4/9x)2 m/ Dl	or DN
та на пред 1997 година и постоя на пред 1997 година и постоя на пред 1997 година и постоя на постоя и постоя н Постоя на пред 1997 година и постоя на постоя	A contract of the second contract of the contr	
	TWO IMPLICIT QUESTIONS	
et Wassiman et ann an Albania (1800) (1801) (1802) (1803) (1803) (1803) (1803) (1803) (1803) (1803) (1803) (18	i) WHA WON TO FIND GO	EEN'S FUNK
	ii) WHAT BO THEY LOOK	
t to be a second of the second	1) 2> follow "direct approxe	ach " of 1908 5
	II) WHAT SHOULD IT YOUR WAS?	
	POINTY? SMOOTH? SYMMETEL	e?
		2m 0 EA
	- de G(x,y) = 8(x-y)	NOBO 2BC.
	$-\frac{d^2}{dx^2}G(x,y) = \delta(x-y)$ smooth, nice-looking C spikey,	Mean-looking
		VERY LOCAL
		PUNC of XI
	() S & G((X))	16 XXA 1 EX 81.
	$G(x,y) = \begin{cases} G(x,y) \\ G_{x}(x,y) \end{cases}$	if x>y I of owners.
		J
	S.f. G, =0 3	2 x 2m 0 EQ
	$G_{7}'' = 0$	NEGO 4 BC.
G	G>	2
\$	v ·	,
e deliminati, mentrajamente a atria i (EP) julija (mentrajamentati propri per (1) ten EP (EP) (mentrajamentati	2 NORE BC. FR	om where?
all laminosis aucumum (n et elem lade un escoled elem les et a uniform et en elem la elem la elem la elem la e e	NEM BOIND GREN	
and the second property of the second	$\frac{1}{2} \left(\frac{1}{2} \left$	

BOUNDARY @ X=y: DEAL WITH &(x-y) THE

DOWN WAN WE KNOW HOW: INTEGRATE IT TO OPELVION

- Tyre (dx2 G) dx = Jyre &(x-y) dx

EDO - dx G | yre = 1

G'r(yy)-G'r(yy) = 1 - wmp

PISCONTINUITY

A first derivative of Green's

FUNCTION is discontinuous

INTEGRATE ARAIN!

⇒ ± G CONTINUOUS @ y

there are your pc-

$$G_{(x,y)} = ax + b \implies ax$$

 $G_{(x,y)} = cx + d \implies cx - c$
 $G_{(x,y)} = cx + d \implies cx - c$

$$\Rightarrow (C-a)y = C \Rightarrow C = -y$$

NEUMANN Q X=1: SAME AS PREV PARE, BUT $G_{\gamma}(1, y) = 0 \Rightarrow C = 0$ d = ARE

 $0 \text{ UMP}: G_3' - G_4' |_{x=y} = -1$ $0 - q = -1 \Rightarrow |q=1|$

continuity: ay = d >>[d=y]

G = { x if x < y = mm(x,y)

G / mdeed, G'(1) =0

	NOW COMPARE TO DISCRETIZED VERSION
	$G \leftarrow 5 \text{ T}$ $X \rightarrow i \text{ ? pight?}$ $S(x-y) \rightarrow 1e_{i} \times C$ $\frac{1}{3} + i \text{ this } PAncies$
DIBIONS:	(T, -1) is = MIN (i) - ii MIN (ii) (441) - ii K+1
	'func" 'func" (K+1-5) (K+1-1)
	Mc. Wli dec. Wli
i daministra	$T_{2} = m_{1}(i, j)$

10	
O ANAM D'S REMINDER FOR NEXT TIME	
f(z)= u(x,y) + iv(x,y)	
I ANAMAGE IF ENC. of 5 POA was 5	
€> NICE (for Nice)	
C DIFFERENTIABLE	
S COUCHY-RIEMANN ER	
Ux = Vy - Ux = = = xy,	etc
$V_{x} = -U_{y}$	
-> TAYUSR EXPANSION	
use it in a sentence:	
"f is analytic in a region R"	
PUNCTIONS MY THE ALLAU	ck.
in some places, hat in	

NICE-ENOUGH: MEROMORPHIC

- MANYTIC EXCEPT FOR ISOLATED POINTS

(Z-Z1) (Z-1)3(Z-2+31)2

is MEROMOPPHE: ONAULIC EVERYWHERE EXCEPT
FOR POLES @ 2,
;
z-3;

and the second of the control of the second	1900 St. Control Contr
on and the first deal programmers, and the second programmers of the constant of the second s	MEROMORPIAE PUNCCIONS HAVE A LAURENT EXP
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- The State of the	LAURENT EXP WITH Z.
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	WE ASSUME THIS
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The Barton Charles and the State and	
	Residue @ 20: (b1)

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	C. THM: Scf(2) dz = 0
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COMMUNICATION AND ASSOCIATION	
	fle) is "NECACE" of NEARBY POINTS
	> MAX 1 MIN ARE ON BOUNDARY
native and control to the William I had some reasonable to the same of the control to the contro	
* Compared State Conference of the Conference of	PUNCHUNE BE NOXT TIME: RESIDUE THAN
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