	let PHE t 203 be a hoison brues with paramets	_
0+)	1. Which of the following are mythingales.	_
	The work of the control of the contr	
1)	(NH)-t, + 209	
	Not is hot a morningle as ETNOW) = 2+co	_
	Jar 0<2<+	_
	2 PA-MILLER / MARCHAN COLLAND	_
	ET NOTES - ET NOW- NOW + NOW [F5]	_
	E [NOH - MOD FS] + E[NO)[FS]	
	= (N(t) = N(t) 13 1 1 2	
	da entre al & (t-D+ N(s)	_
	Mence, E[N(t) F5] + N(5)	H
	· mark of the second se	L
	80 LN(to, t 203 is not a massingale.	L
	8x8 10 (W) 6 2 3 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	_
	the sws massingale	-
	1 12cm + 1 203	-
(i)	₹N2(t)-t, t>03	-
		_
	A Brownian motion is a continuous process with	-
	independent Crauseian in crements. A bonurian	-
	independent Crauseian in Jemes Witter - With movements Witter - With movements Witter - With movements Witter - With	-
	t, 820 hure mean zero (o) and vondere 8.	-
	t, 820 NWC 72000	-
	1 10	-
-	Wis morningbale	-
	FUCLEXI- FOR FLW) + Web = Web =	_
	E[N(+x) FW) = E[N(+x) - W(b FW) + N(b) = N(b)	The state of the s
		-
	Ft (W(B): J 5t)	-
_	1.2	-

	W has quadratic voriation t, that is
	$[W]_{t} = \lim_{Sup t; +_{t} - t; =0} \sum_{i} (W(t \wedge t; +_{i}) - W(t \wedge t; +_{i}))^{2} - t$
-	In probability, or more precisely
	$\lim_{\sup t \to \infty} \sup \left \sum_{t \in T} \left(W(t \wedge t_{j+1}) - W(t \wedge t_{j}) \right)^{2} - t \right = 0$
	in hrobability for each T>0
	Weti^2-t is mastingall.
	Home, we can say that IN2(t)-t, t 203 is
	$\sqrt{(N\omega-t)^2}, -t, t \ge 0$
†	Nt = (N(t) - t) - t
- [- 	he need to prove that El Wys (FS) = Ws to
100	E[Wto Fr) = E[[N(+to) - (+to)] - (+to) [F8]
<u>.</u>	E[N2(4+5) + (+ +9)2 - 2(+4) NO(+1) - (++5) [F]
	E[N2(+1)] + (++1)2 - 2 (++1) E [p(+1) + ff] - (+1)
	[N(5) - X(t-5)] ² + (++5) ² - 2(t+5) E[N(t+7) F] - (t+5) - (t+5) - (t+5) - (t+5)
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0	Date (

Date Page		-
Non, we know that I=1		
		-
 N2H (NB+4-5)2+ (++5)2-2 (++5)[NB+(+5)] - (4+5)	_	+
12(8) + (t-5)2 + 2+-5)N(5) + t2+522t5 - 2(+9M(5)-2(+25)	-	-
 N (3) + (+-1) + 4+-3) N(S) + + - 1725 - 2003 - 6-65	-	
 . 50	_	1
 A, we can dearly see this is mh equal to Mas		+
 or Mg= (N (5) - t) - t		1
	-	-
 and hence this is not a mastingale.		+
	7	1
	-	
	\vdash	-
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	+	
	-	U
	<u> </u>	
	+	1
X X		The second
	+	The same of
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	1	The same of
		A
		1400