

(3)	Let INCO, + 203 be a Bywnian notion.
	Pome that I + W (1/t) (+ 203) whose two (1/t)
	is token to be zero when t=0 is a Bawmian
	Motion.
,	
	Gamian motion is defined as a stochastic prous
	d x00, t 203 i):-
	$i \lambda + i \lambda = 0$
	i) to = 0 ii) Ext, t zoy has stationan and independent
, 41	in 180 ments
	ii) For every + >0, - x (+) is normally distributed
	with mean o and covince oft.
	the second second the second s
	Now we are given a bronian porus tots and
	hen need to prove that the (1/t) bass a
	Stonnian process (Weiner Ptoes).
	Let Wy= +Wy+ +>0 and \$\hat{W}_0=0. This proves
	the jist condition for promian process.
	Now o < J & t implies 1/4 & 1/5
~	Thus has the
	[1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
	60 (Ws, Wt) = 60 (SW,s, tW,t)
	= St Cov (W/15, W//+)
	1/0/ 1×1/t)
	- St. 1 = S
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Now to show the continuity of We it is sufficient to show the continuity of We at to.
to show the continuite a los it is sufficient
0 + -1
But it is already given that [tw(1/t)] =0
Also,
1-100
lim W 12- 12
lim Wt - lim thyt - lim Wt - 0 to to to t
None, from continuity we can state that the new process by is also a brown in process.
new proces by is also a bouni on process
(Wiener Process)
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