Part 2f: Sequential simulation

Textbook: pp. 48-49

The joint density can be factored as a product of conditional densities. In some cases it is easier to simulate from conditional densite. A sample from the joint distribution can be produced via sequential sampling from conditional densities.																		
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Simulating t	he AR(1) proc	cess					
The AR(1) pro	ocess is defined	d via the re	cursion:				
	$X_n = 1$	$a_1 \cdot X_{n-1} +$	ϵ_n ,				
	$N(0, \tau^2)$ and ϵ of each other		2), $2 \le i \le$	n, are			
macpenaent	of cach other				(2	- a ₁	۲, ۱۶
f (xn/zn/xn/xn/xn/xn/xn/xn/xn/xn/xn/xn/xn/xn/xn	× _{ν-1,,} x ₁)	= } (2 X,1)	'n xn-,)	- Vz1162	e	26.5	
	ate x, a						
2: Sa	1 = 2,3,	- , n					
	generate	x; ~ /	V (a, X n	-1, 6²)			
4: end	1 for						
S: ret	turn (X,	, Xn)					