5.7.1 · Parte H1(a): Xn+1 = 4 xn - xn, Xo = 4 Sen20 Caso base: 4 Sen = 0 (4 - 4 Sen = 0) = 16 Sen = 0 Cos = 0 Sen (24) = 25-en 4 cosq sen (24) = 45en (4) cos (4) = 4 Sen2(20) = 4 Sen2(20+10) Paso inductivo: Si | Xn = 4 Senz(zn 0) es cierto, enton cesa $\chi_{n+1} = 4\chi_n - \chi_n^2 = \chi_n / 4 - \chi_n = 4 Sen^2 (z^n \theta) (4 - 4 Sen^2 (z^n \theta))$ = 16 Sen2(2n0) (1- Sen2(2n0)) = 16 Sen2(2n0) Cos2(2n0) Sen(26) = 25en(4) cos(6) = Sen2(20)=45en2(4) cos2(4) = 165en2(4) cos2(4) = 45en2(4) = 4 Sen2(2[2n0]) = 4 Sen2(2n+10) · Parte#2(1): 2n+1 = 4 2n - 4212, 20 = Sen20 Caso base: $\chi_1 = 4 \operatorname{Sen}^2 \Theta \left(1 - \operatorname{Sen}^2 \Theta \right) = 4 \operatorname{Sen}^2 \Theta \operatorname{cos}^2 \Theta = \operatorname{Sen}^2 (20)$ = Sen2(20+10) Paso inductivo: Si [xn = sen2 (2 P)] es cierto, entouces: Xn+1 = 4 xn-4x2=4x1 (1-x1)=4Sex2(200) (1-Sex2(200)) = 4 Sen2(2"0) (052(2"0) = Sen2(2[2"0]) = Sen2(2"+10) =