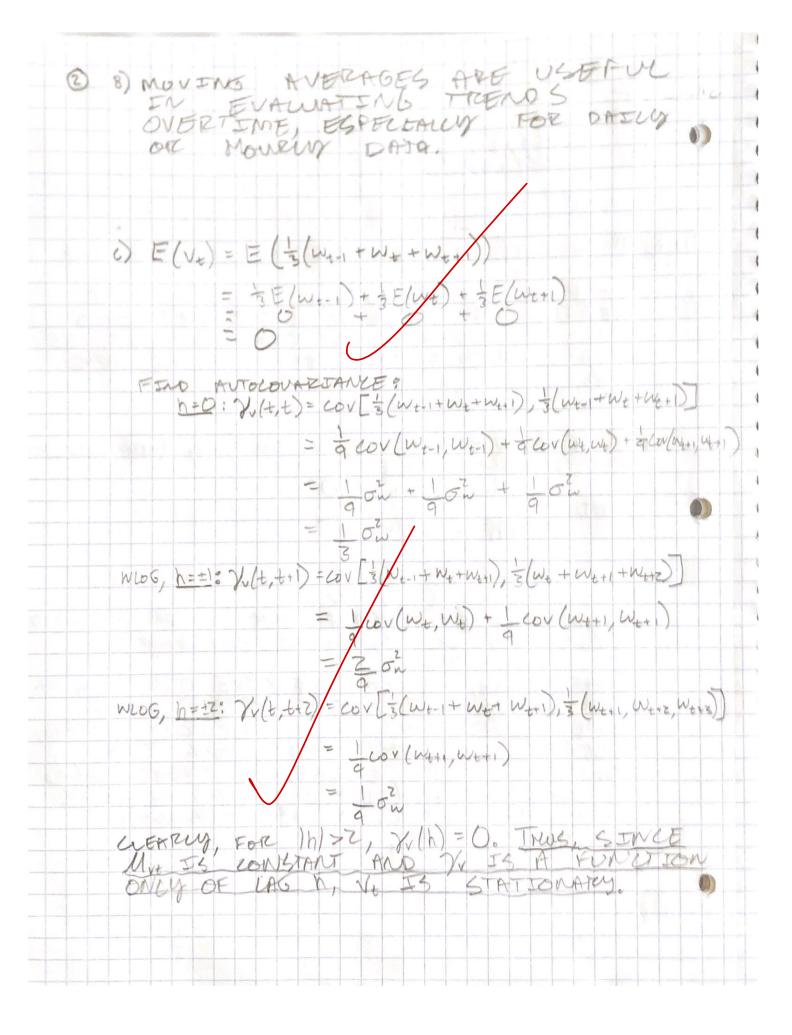
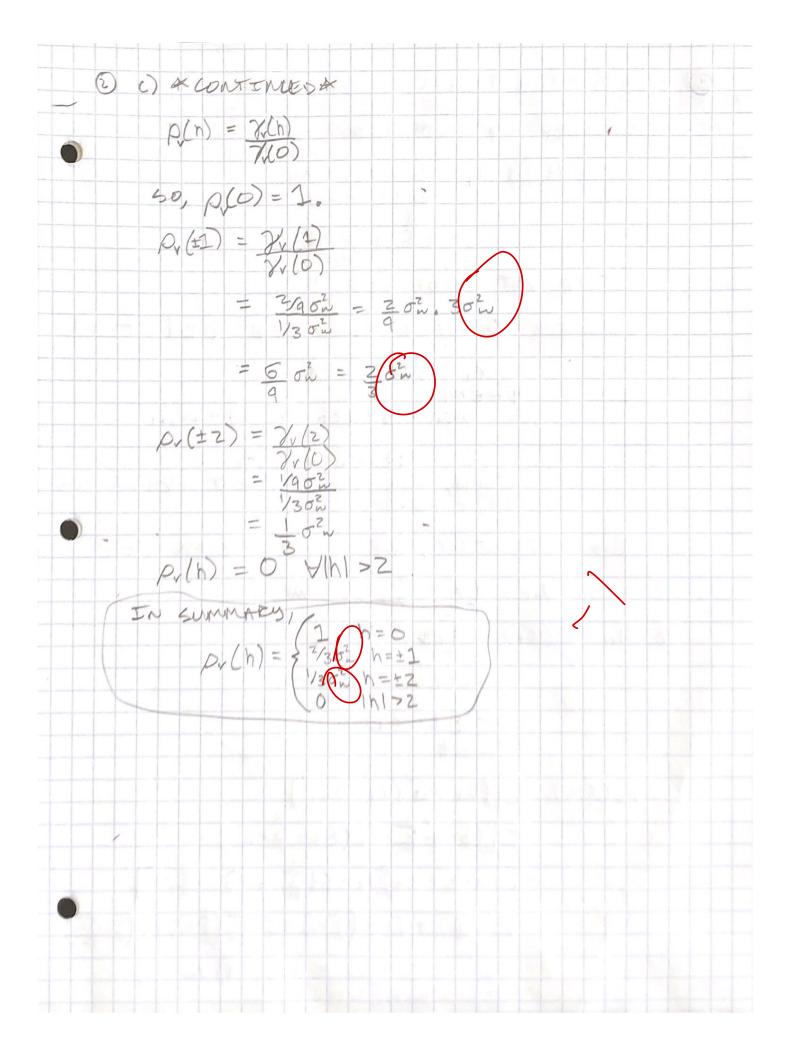
EXAM 1 MONOR CODE PLEDGE! DO A WHITE NOISE/ SERVES IS SIMPLY IT IS JUST A CBSERVATIONS SHAL DISTRIBUTION, IT IS WITH CONSTANT A n+0. MEDRETECALLY, WE KNOW WY (MEAN D, Sd 5) IS STATIONARY SINCE Mut = E(Wt) = 0 AWD Yu. (h) = cov [wt, wt = {5 h=0 0 h + 0 SINCE MAY IS CONGRAMM ONLY OF LAG W, WY AND Tw. FUNCTION GRAPHICALLY, WE CAN OFSERVE THAT WE IS STATIONARY LOOKING AT SANGLE AC Follows DIN Controvery STATISTICITUS INSIGNIFICANT)





3 xt = 6 + xt-1 + wt A) PROCEED BY INDUCTION. BASIS (t=1) 8 x, = 8 + x + w, = 8 + 0 + w, = + 5 + 5 Wx STATEMENT MOLDS FOR t= I's INDUCTION: SUPPOSE FOR SOME t21 Xt = +6 + 5 W+ THEN, 2+1 = 8 + (+8 + \(\frac{t}{2} w_{+} \) + W_{++1} MENUE, THE STATENENT MOLDS FOR t+1, GIVEN tZ1. BY INDUCTION, WE MAVE PROVEN TMAT Xt = 18 + 2 WK. B) Mx+ = E(x+) = E [8+ + \(\frac{1}{2}\) \(\nu_x\) = E(8t) + \(\)E(W) = 8t +0 1/2 (s,t) = [(x, -Mx,)(x+-Mxt)] = E (85+ 2 ms) (8+ 2 mx) = E[st8 + 85] WE + 8t] WE + 2 WE INE = 5 t 8 + 0 + 0 + 0 + min {5, t} on

(3) O) ALTHOUGH (Max = 0) FOR 6=0, THE ANNOT SE EXPRESSED AS A FINCTION OF LAG. HENCE, SCE IS NOT STATIONARY,

