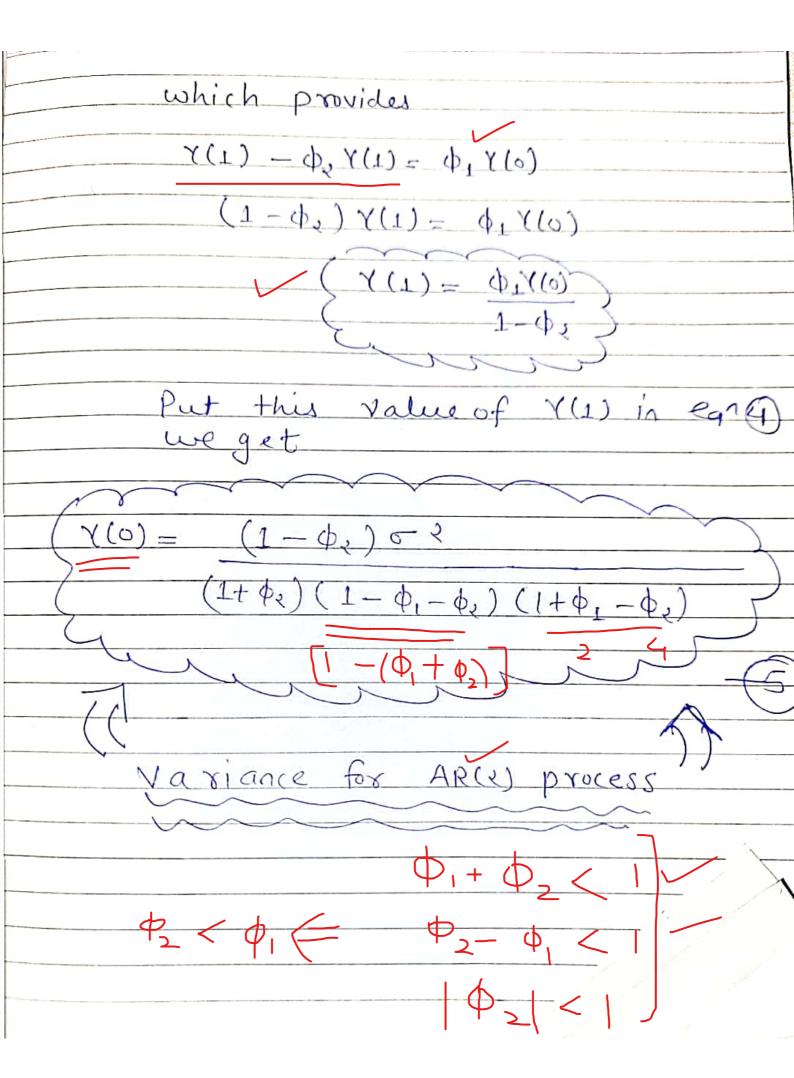
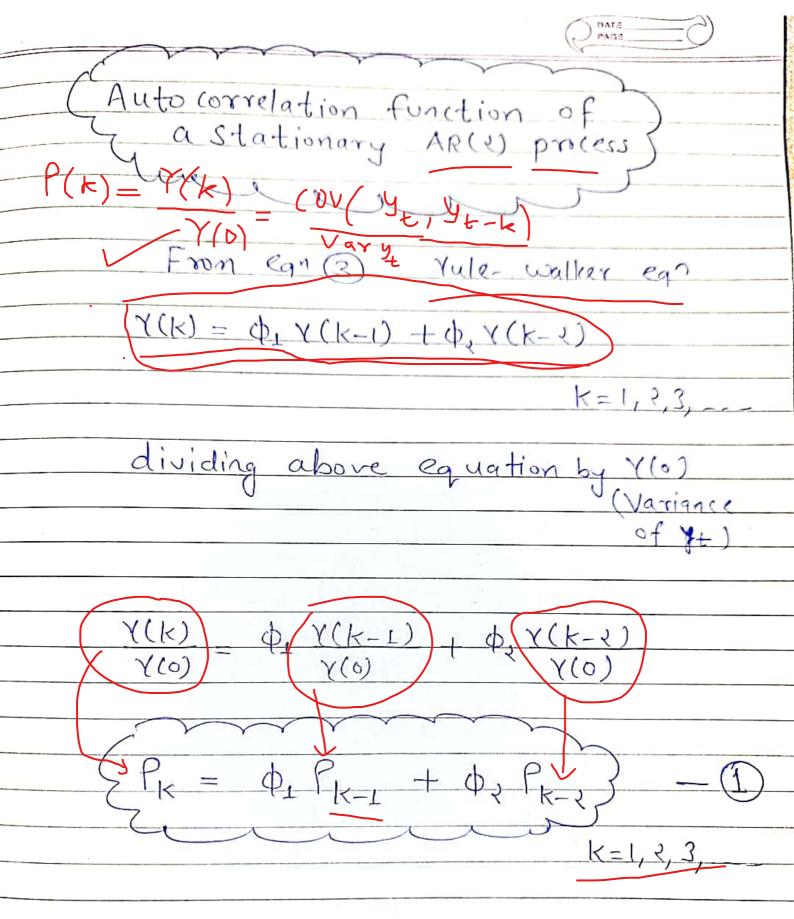


Auto covariance for we have $(0) = \phi_1 Y(1) + \phi_2 Y(2) + 6^2$ and De Coope $Y((k) = \phi_1 Y(k-1) + \phi_2 Y(k-2)$ The egn in (3) lule-Walker 3 equations for Y(K).

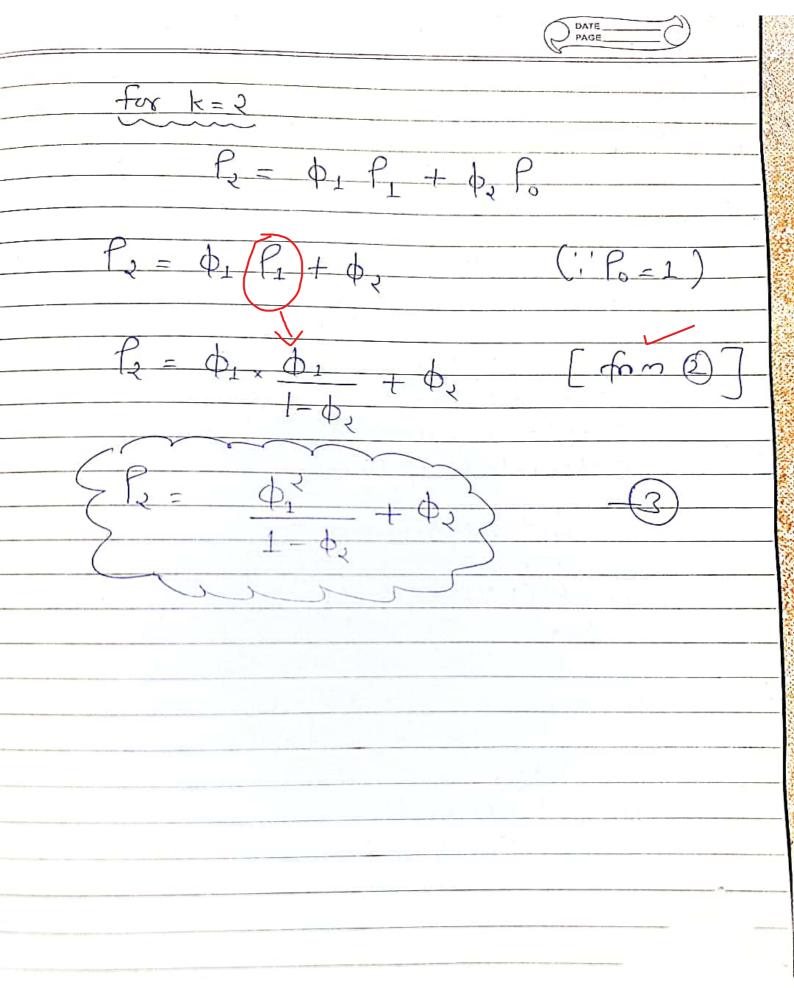
Again from ear 1 v(constant)=0 7t = 8 + pr 7f-1 + pr 7f-2 + Et Taking Variance on both sides Var(yt) = Var(\$1 4t-1 + \$24t-2 + Et) (NOTE) => Var(X+Y+Z) = Var(X) +Var(Y) + Var(z) + * 2(0V(XY) +2(0V(YZ) + 2 (OV (XZ) Vax(ax)= a= vax(x) Var (y+) = (Var (\$\p_1 y_{t-1}) + Var (\$\p_2 y_{t-2}) + Var(Et) + 2 (ov (\$\psi_2 \dagger 4_{t-1} \dagger 4_{t-2}) - 2 cov (\$ 4t- 2 Et) + 2 cov (\$ 14-1 Et)

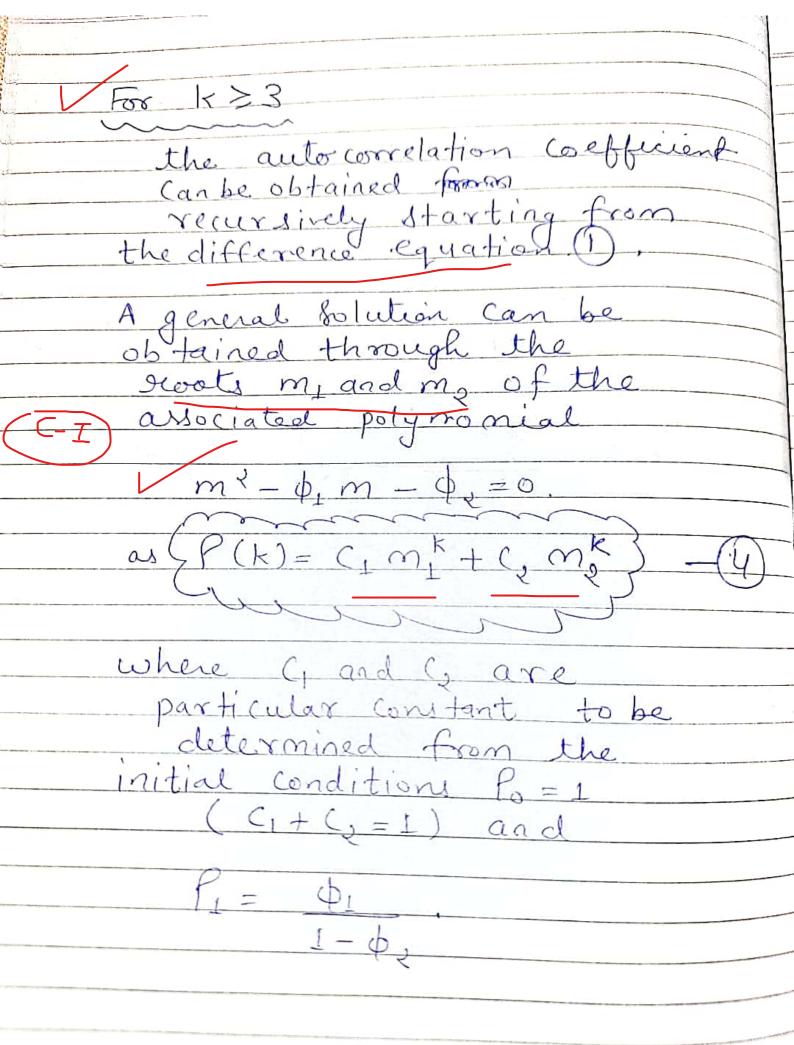
Var(yt) = \$ 2 var(yt-1) + \$ 2 var(yt-2) + Var(Et) + 2 0, 0, cov (yt-1, yt=2) V981 = (a) x + b + + (b) x x (b) + (c) x x (t) = (c) x (c) Y(0) = Var(yt) = Var(yt-1) = Var(yt-2) nom 691 (3) $\Upsilon(k) = \phi_1 \Upsilon(k-1) + \phi_2 \Upsilon(k-2)$ X(T) = (1)X(0) + (1)X(-1) $Y(1) = \phi_1 Y(0) + (\phi_2 Y(1))$ (-1) = ((L)

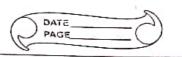




for
$$k=1$$
 $P_{1} = \phi_{1} P_{0} + \phi_{2} P_{-1}$
 $P_{1} = \phi_{1} P_{0} + \phi_{2} P_{1}$
 $P_{1} = \phi_{1} P_{0} + \phi_{2} P_{1}$
 $P_{1} = \phi_{1} P_{0} + \phi_{2} P_{1}$
 $P_{1} = \phi_{1} P_{0}$
 $P_{2} = \phi_{1} P_{0}$
 $P_{3} = \phi_{1} P_{0}$
 $P_{4} = \phi_{1} P_{0}$
 $P_{5} = \phi_{1} P_{0}$
 $P_{6} = P_{1}$
 $P_{1} = \Phi_{1} P_{0}$
 $P_{2} = \Phi_{1} P_{0}$
 $P_{3} = \Phi_{2} P_{0}$
 $P_{4} = \Phi_{1} P_{0}$
 $P_{5} = \Phi_{1} P_{0}$
 $P_{5} = \Phi_{2} P_{0}$
 $P_{5} = \Phi_{2} P_{0}$
 $P_{5} = \Phi_{3} P_{0}$
 $P_{5} = \Phi_{1} P_{0}$
 $P_{5} = \Phi_{2} P_{0}$
 $P_{5} = \Phi_{2} P_{0}$
 $P_{5} = \Phi_{3} P_{0}$
 P_{5







According to ear (4), the coefficients

\[
\begin{align*}
\begin{a

ECASE-II) If my and my are Complex conjugates in the form atib, we then have Jar+62 <1 $P(k) = R^{k} \left[C_{1}(os(\lambda k) + (2sin(\lambda k)) \right]$ $(k \ge 3)$ where R=|mil = Ja2+b2 and I is determined by $\cos(\lambda) = \alpha$ $Sin(\lambda) = b$ Hence atib= R[cos(x) + isin(t)] C, and Co are particular Constant.

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The ACF in this case has the form of a sinusoid with damping factor R and frequency &.
i.e., the period is 25.

EASE-III)

If there is one real

 $m_1 = m_2 = m_0$, we then

P(K) = (C, + (ok) mok

in this case ACF will exhibit an exponential decay pattern.