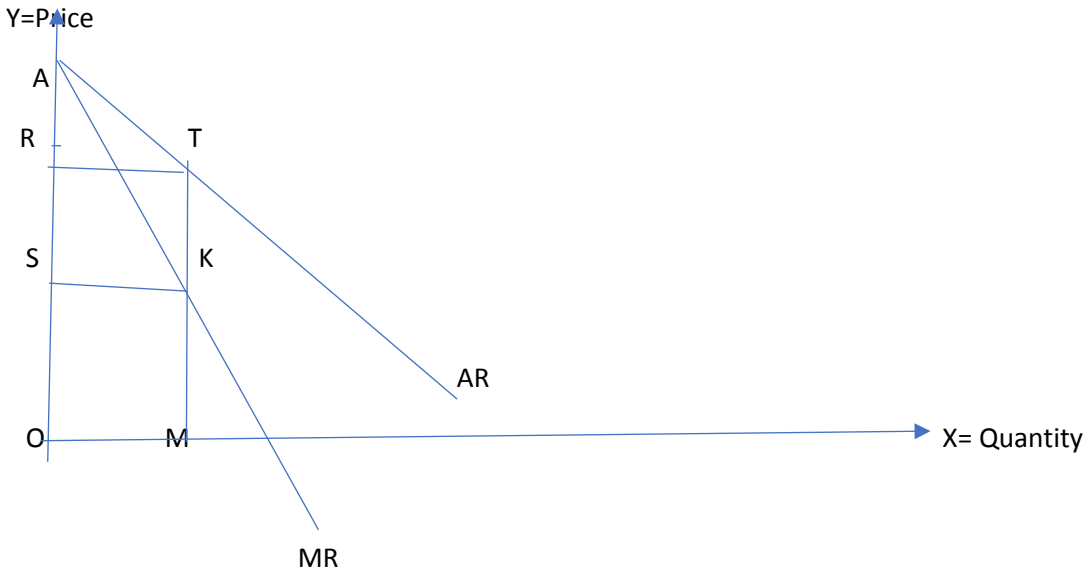
I. RATE OF CHANGE IN MR IS TWICE THE RATE OF CHANGE IN AR:

If any demand function P= f(X)

Total revenue (TR) = P.X [price multiplied by quantity]

Or, d(TR)/dX = P+X. dP/dX



At point, T, TM=P and OM= X

KM = MR=d(TR)/dX

Or, KM = P+X.dP/dX

Or, KM = TM+OM.(dP/dX) [dP/dX is the slope of average revenue at point T]

dP/dX = - AR/RT

OR, KM= TM+ OM(-AR/RT) [But OM= RT]

or, KM = TM-AR

or, KM = TM- TK

or, TM –AR = TM-TK

or, AR = TK = RS

or, AR = RS

or, AS= 2AR

II. AR AMD MR ARE RELATED THROUGH ELASTICITY

Total revenue (TR) = P.X [price multiplied by quantity]

Or, d(TR)/dX = P+X. dP/dX

= P(1+ X/P. dP/dX)

{Since, e_d = - dX/dP.P/X]

Or, MR =AR (1- 1/|ed|)

Or, MR = AR(1-!/e_d) [e_d is always taken a positive)