Example for Short-term Estimate, Arithmetic Growth Method:

- Assumption: $\frac{dP}{dt} = K_a$ = constant growth rate

- Equation 1.2:

$$P_t = K_a t + P_o$$

$$Y = MX + N$$

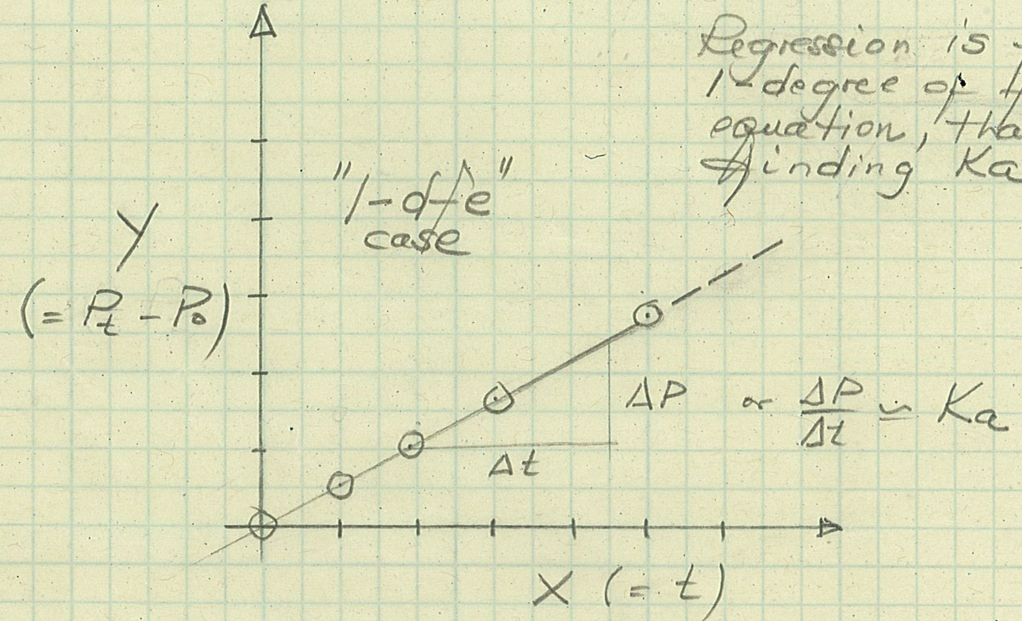
a) If P_o = unknown: Regression is for a 2-degree of freedom equation, that is finding K_a & P_o

b) If P_o = known:

$$P_t - P_o = K_a t$$

$$Y = MX$$

Regression is for a 1-degree of freedom equation, that is finding K_a



Determine the "coefficient of determination" or R-squared, R^2, to define the goodness of fit.

$$0 \le R^2 \le 1$$

no fit. ← ... ← perfect fit of data to a line

Example for Short-term Estimate, Arithmetic Growth Method:

- Assumption: $\frac{dP}{dt} = K_a$ = constant growth rate

- Equation 1.2:

$$P_t = K_a t + P_o$$

$$Y = MX + N$$

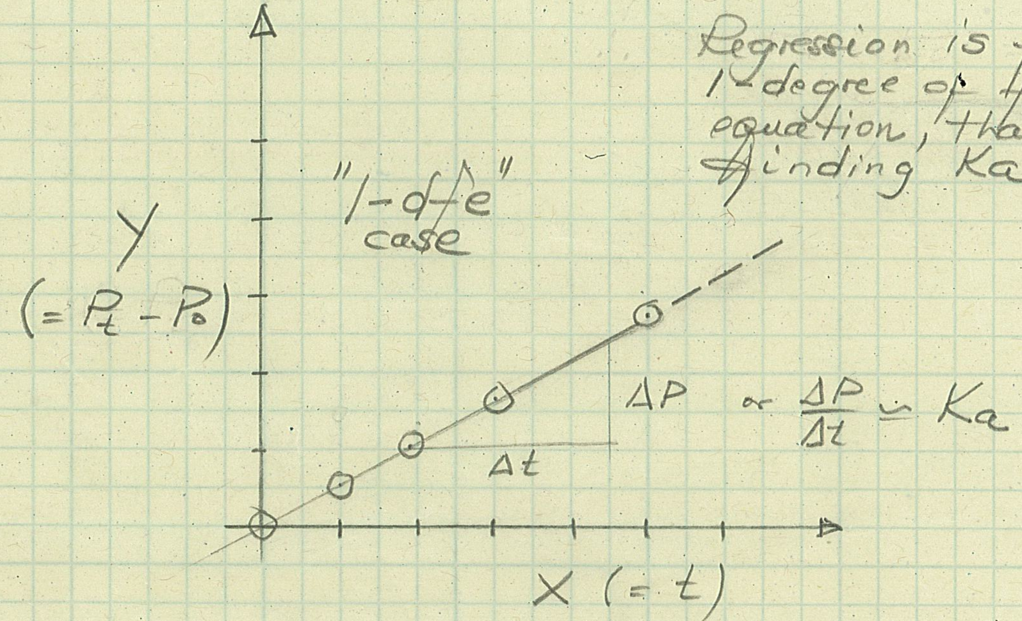
a) If P_o = unknown: Regression is for a 2-degree of freedom equation, that is finding K_a & P_o

b) If P_o = known:

$$P_t - P_o = K_a t$$

$$Y = MX$$

Regression is for a 1-degree of freedom equation, that is finding K_a



Determine the "coefficient of determination" or R-squared, R^2, to define the goodness of fit.

$$0 \le R^2 \le 1$$

no fit. ← | ← perfect fit of data to a line