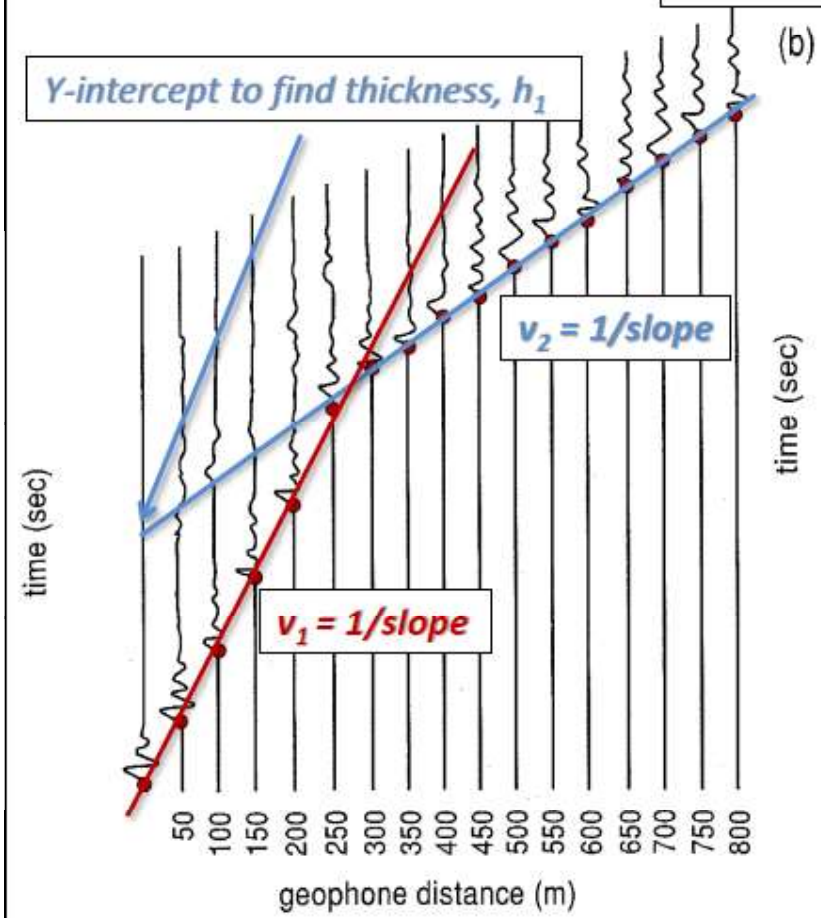
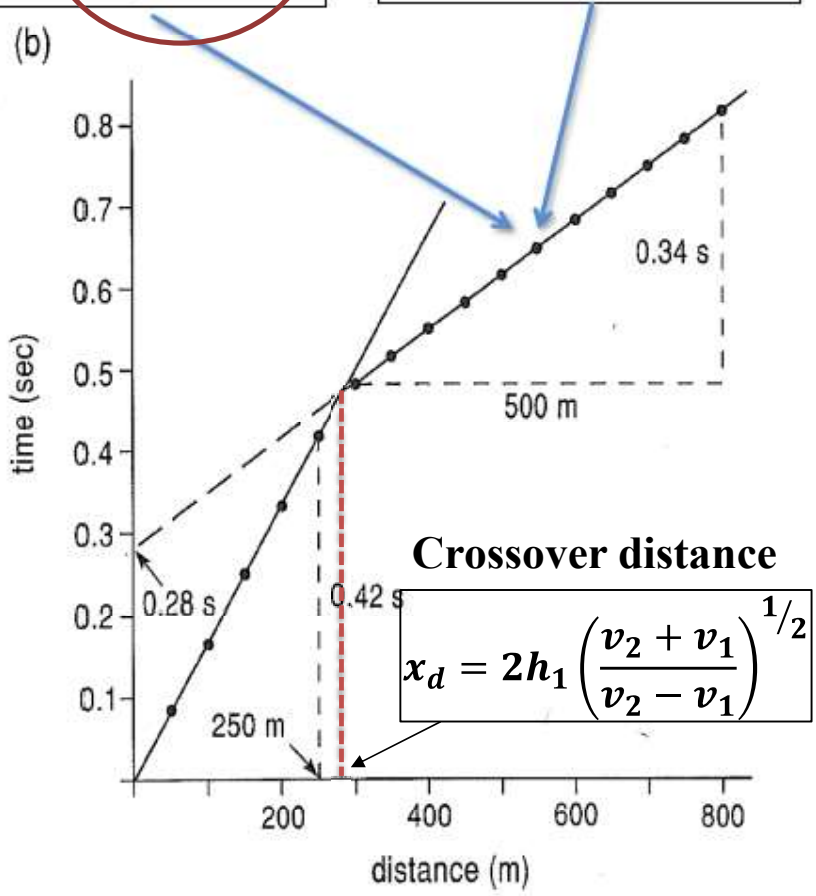
Moho Calculation

= 0.28

Refracted Ray Arrival Time, t $t = \frac{x}{v_2} + 2h_1\sqrt{\frac{1}{v_1^2} - \frac{1}{v_2^2}}$ or $t = \frac{x\sin i_c}{v_1} + \frac{2h_1\cos i_c}{v_1}$





Crossover distance

$$x_d = 2h_1\left(\frac{v_2 + v_1}{v_2 - v_1}\right)^{1/2}$$

Vp/Vs Calculation

Arrival Time =
Origin Time + Travel Time

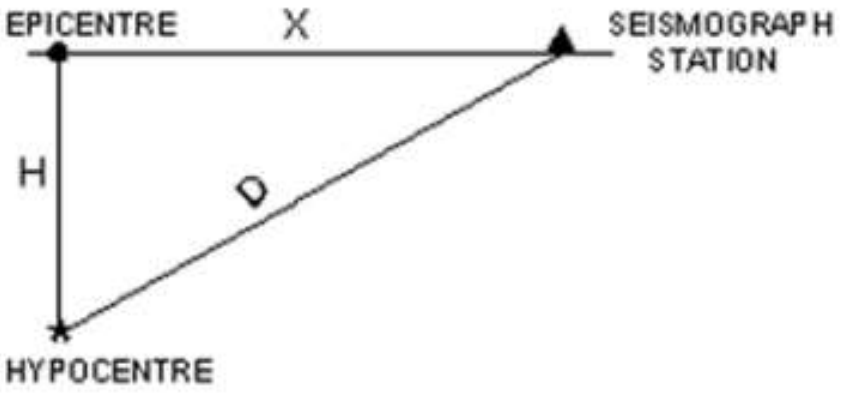
$$T_P = T_0 + \frac{D}{V_P}$$

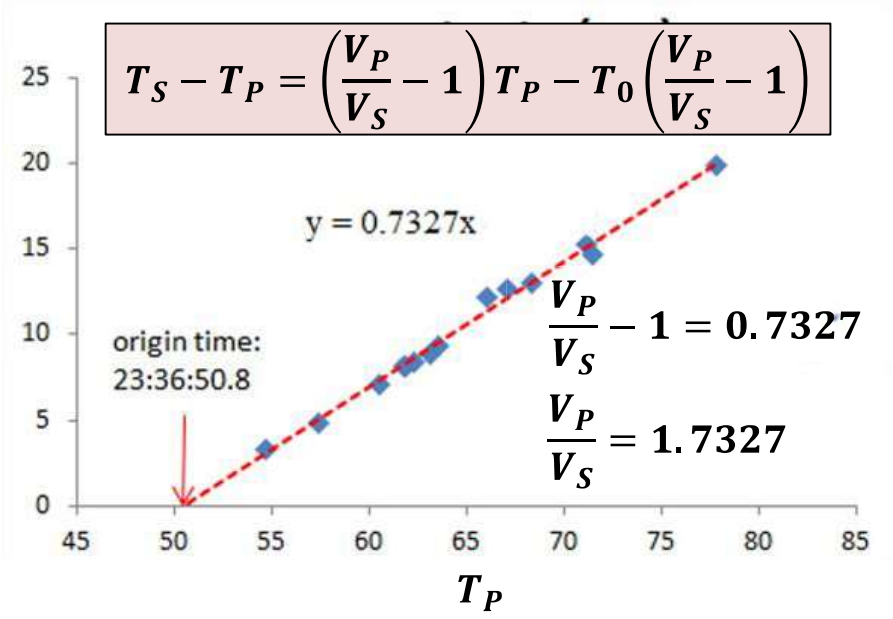
$$T_S = T_0 + \frac{D}{V_S}$$

$$T_S - T_P = D\left(\frac{1}{V_S} - \frac{1}{V_P}\right)$$

$$T_S - T_P = \frac{D}{V_P}\left(\frac{V_P}{V_S} - 1\right)$$

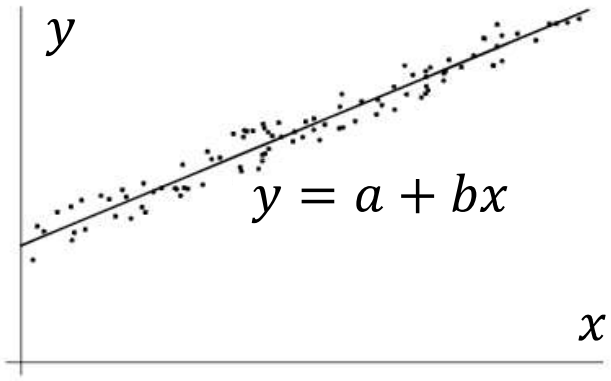
$$T_S - T_P = \left(\frac{V_P}{V_S} - 1\right)(T_P - T_0)$$





Wadati Diagram

Least Squares Fitting



$$a = \frac{\sum_{i=1}^{n} y_i \sum_{i=1}^{n} x_i^2 - \sum_{i=1}^{n} x_i \sum_{i=1}^{n} x_i y_i}{n \sum_{i=1}^{n} x_i^2 - (\sum_{i=1}^{n} x_i)^2}$$

$$b = \frac{n \sum_{i=1}^{n} x_i y_i - \sum_{i=1}^{n} x_i \sum_{i=1}^{n} y_i}{n \sum_{i=1}^{n} x_i^2 - (\sum_{i=1}^{n} x_i)^2}$$