

Ford 500 – h Value

$$\bullet \quad \bar{y} = \frac{L}{30} \left(\frac{-13C_1 - 18C_2 - 6C_3 + 6C_4 + 18C_5 + 13C_6}{C_1 + 2C_2 + 2C_3 + 2C_4 + 2C_5 + C_6} \right)$$

$$\bar{y} = \frac{64.2}{30} \left(\frac{-13(8.5) - 18(15.9) - 6(15.5) + 6(11.4) + 18(6.3) + 13(1.1)}{107.8} \right)$$

$$\bar{y} = -5.82 \text{ in; } h = D + \bar{y}$$

$$h = -5.82 - 0.9 = -6.72 \text{ in.} = -0.56 \text{ ft.}$$

Chevrolet S10 – h Value

$$\bullet \quad \bar{y} = \frac{L}{30} \left(\frac{-13C_1 - 18C_2 - 6C_3 + 6C_4 + 18C_5 + 13C_6}{C_1 + 2C_2 + 2C_3 + 2C_4 + 2C_5 + C_6} \right)$$

$$\bar{y} = \frac{58.1}{30} \left(\frac{-13(16.8) - 18(13.8) - 6(18.2) + 6(14.4) + 18(4.5) + 13(0.2)}{118.8} \right)$$

$$\bar{y} = -6.66 \text{ in; } h = D + \bar{y}$$

$$h = -6.66 - 0.5 = -7.16 \text{ in.} = -0.60 \text{ ft.}$$

Chevrolet S10 – Gamma Value

$$\bullet \quad I = 1.03w - 1343; \quad k^2 = \frac{Ig}{w}; \quad \gamma = \frac{k^2}{k^2 + h^2}$$

$$I = 1.03w - 1343 = 1.03(3400) = 2159$$

$$k^2 = \frac{Ig}{w} = \frac{2159(32.2)}{3400} = 20.44$$

$$\gamma = \frac{k^2}{k^2 + h^2} = \frac{20.44}{20.44 + (.36)} = .99; \text{ Ford values are essentially the same}$$