$$\frac{1}{R} = \frac{1}{R_1} + \frac{1}{R_2} + \frac{1}{R_3}$$

$\left|\frac{dR_i}{R_i}\right| \le .005$ ← 0.5% error in each resistance.

$$d\left(R^{-1} = R_1^{-1} + R_2^{-1} + R_3^{-1}\right)$$

$$d(R^{-1}) = d(R_1^{-1}) + d(R_2^{-1}) + d(R_3^{-1})$$

$$-R^{-2}dR = -R_1^{-2}dR_1 - R_2^{-2}dR_2 - R_3^{-2}dR_3$$

$$R^{-2}dR = R_1^{-2}dR_1 + R_2^{-2}dR_2 + R_3^{-2}dR_3$$

$$|R^{-2}dR| \le R_1^{-2}|dR_1| + R_2^{-2}|dR_2| + R_3^{-2}|dR_3|$$

$$\le .005R_1 \quad \le 0.005R_2 \quad \le 0.005R_3$$

$$\le .005\left(R_1^{-1} + R_2^{-1} + R_3^{-1}\right) = .005\,R^{-1}$$

$$|dR| \le R^2\left(.005\,R^{-1}\right) = .005\,R$$

∴ total resistance has same percentage error. 0.5%

calculate R from R_1, R_2, R_3,
multiply by .005.