$$F_i^{(A1)} = \sum_A |aX_i - bX_b| = \sum_A b \left| \frac{a}{b} X_i - X_b \right|$$

$$F_i^{(A2)} = \sum_A |aY_i - bY_b| = \sum_A b \left| \frac{a}{b} Y_i - Y_b \right|$$

$$F_i^{(R1)} = \sum_A \left| \frac{aY_i - bY_b}{bY_b} \right| = \sum_A \left| \frac{\frac{a}{b} Y_i - Y_b}{Y_b} \right|$$

$$F_i^{(R2)} = \sum_A \left| \log_{10} \frac{aY_i}{bY_b} \right| = | \sum_A \left| \log_{10} \frac{a}{b} Y_i - \log_{10} Y_b \right| ,$$