

# Shouji Rating System V3.2

## Formulas

$$A\mu = 1500$$

$$B\mu = 1500$$

$$A\varphi = 0.64$$

$$B\varphi = 0.64$$

$$A\sigma = 0$$

$$B\sigma = 0$$

$$\beta = 400$$

$$C = (A\varphi * B\varphi * AT * BT) ** 0.25 * \beta$$

$$AJ = (A\mu ** A\varphi) ** AT$$

$$BJ = (B\mu ** B\varphi) ** BT$$

$$AT = A\mu / ((A\mu ** A\varphi) + A\mu)$$

$$BT = B\mu / ((B\mu ** B\varphi) + B\mu)$$

$$R^o = 1 / (1 + 10 ** ((B\mu - A\mu) / C))$$

$$B^o = 1 / (1 + 10 ** ((A\mu - B\mu) / C))$$

**A $\emptyset$ , 1 = Win, 0.5 = Draw, 0 = Loss.**

**B $\emptyset$ , 1 = Win, 0.5 = Draw, 0 = Loss.**

$$A\mu' = A\mu + AJ * (A\emptyset - A^o) + AJ * A\sigma$$

$$B\mu' = B\mu + BJ * (B\emptyset - B^o) + BJ * B\sigma$$

$$A\varphi' = (A\varphi * AT) ** (1 - ((A\sigma) ** 2) ** 0.5)$$

$$B\varphi' = (B\varphi * BT) ** (1 - ((B\sigma) ** 2) ** 0.5)$$