Co-op	Teams	Ranked	Party
P does not matter	P does not matter	P matters	P does not matter

$$E = \frac{T}{(R/P)} + XT$$

$$\text{co-op}: P = \frac{p^*}{\text{teams}}$$

$P = \text{teams}$

$E = XT$

$$E_{party} = XT + \begin{cases} \text{if loss} & \frac{2}{3}yt \\ \text{if win} & yt \end{cases} \quad \text{Or} \quad E_{Party} = \begin{cases} \text{if win} & Xt \quad \{x \text{ divisible by } 3\} \\ \text{if loss} & \frac{2}{3}Xt \quad \{x = 3y\} \end{cases}$$

$$E_{co\text{-}op} = \begin{cases} \text{if win} & Xt \quad \{x = 3y\} \\ \text{if loss} & \frac{2}{3}Xt \end{cases}$$

$$E_{teams} = \begin{cases} \text{if win} & Xt \quad \{x = 3y\} \\ \text{if loss} & \frac{2}{3}Xt \end{cases}$$

$$E_{ranked} = \frac{2}{3}Xt + \begin{cases} \text{if loss} & 0 \\ \text{if 1st} & Zt \\ \text{if 2nd \& } P \geq a_1 & \frac{Zt}{2} \\ \text{if 3rd \& } P \geq a_2 & \frac{Zt}{3} \\ \text{if 4th \& } P \geq a_3 & \frac{Zt}{4} \end{cases} \quad \{\frac{x}{3} \leq Z \leq x\} \quad \frac{Zt}{(R/3)}$$

$\{x = 3y\}$

$a_1 = 3$

$a_2 = 4$

$a_3 = 6$

Variables

$\underbrace{a_1 \; a_2 \; a_3}_{\text{benchmarks}}$, Z winner's constant, $\underbrace{y}_{x \text{ before multiple of 3}}$, $f = \frac{2}{3}$ in above functions

Time (T) # of players (P)
Experience (E) Rank (R)

Base:

$$E = 10T + \frac{P}{4}T = T\left(10 + \frac{P}{4}\right)$$

$$E = \underbrace{T}_{\text{flate rate}} + \underbrace{T}_{\text{players}} + \underbrace{\frac{T}{R}T}_{\text{win/rank}}$$