~~Assumption 2: Suppose.~~

3). Assumption:

In order for B to win the match, we are assuming B's chance to win the serve

$P = 0.45$ $1-P = 0.52//$

4 points → $0 - 15 - 30 - 40$ → game.

Player B must win by atleast 2 points.
//Deuce is not considered.

① total points → 4
  B' won → 4

$\Rightarrow 4C_4 \times P^4 \times (1-P)^{4-4}$ 4 - 0

    Game - 0

$\Rightarrow 1 \times P^4 \Rightarrow (0.48)^4 \Rightarrow 0.053$

② $A - 4 \rightarrow B \Rightarrow 1$

  $\Rightarrow P \times 4C_3 \times P^3 \times (1-P)^1$ Game - 15
    (4) - 1

  $\Rightarrow 0.48 \times 4 \times 0.48^3 \times 0.52^1$

    $\Rightarrow 0.1104//$

(iii) Game - 30
4 - 2
size = 5

$$p \times 5C_3 \times p^3 \times (1-p)^2$$

$$\Rightarrow 0.48 \times \frac{5 \times 4}{2 \times 1} \times (0.48)^3 \times (0.52)^2$$
$$\Rightarrow 0.14$$

P(overall game) = P(i) + P(ii) + P(iii)
$$\Rightarrow 0.053 + 0.1104 + 0.1435$$
$$\Rightarrow 0.307 //$$

(4) A = 3.03   B = 6.66   C = 3.12

odds → probability
$$\Rightarrow \frac{1}{odds} \Rightarrow \frac{1}{3.03} = 0.33 //$$

$$P(B) = \frac{1}{6.66} = 0.1501 //$$

$$P(C) = \frac{1}{3.12} \Rightarrow 0.3205 //$$