To calculate the multiplier for a betting platform, you need to understand the probability of the event and how the house edge impacts the multiplier. Let's break it down step-by-step.

## Step-by-Step Calculation:

We are only calculating by keeping eye on winning probability.

1. Understand the Probabilities:

## For a 50-50 chance, the probabilities are:

- a. Winning probability = 50% = 0.50
- b. Losing probability = 50% = 0.50
- 2. Ideal Multiplier Without House Edge:
  - a. For winning probability (0.50):
    - i.  $Ideal\ multiplier = 1/0.50 = 2$
- 3. House Edge:
  - a. House Edge = 1% of Ideal Multiplier = (Ideal Multiplier \* 0.01)
    - i. House Edge = 2 \* 0.01 = 0.02
- 4. Multiplier After House Edge:
  - a. Multiplier = Ideal Multiplier House Edge
    - i. Multiplier = 2 0.02 = 1.98
- 5. Understand the Probabilities:

## For a 40-60 chance, the probabilities are:

- a. Winning probability = 40% = 0.40
- b. Losing probability = 60% = 0.60
- 6. Ideal Multiplier Without House Edge:
  - a. For winning probability (0.40):
    - i. Ideal multiplier = 1/0.40 = 2.50
- 7. House Edge:
  - a. House Edge = 1% of Ideal Multiplier = (Ideal Multiplier \* 0.01)
    - . House Edge = 2.50 \* 0.01 = 0.025
- 8. Multiplier After House Edge:
  - a. Multiplier = Ideal Multiplier House Edge
    - i. Multiplier = 2.50 0.025 = 2.475