





# THE BATTING AVERAGE PARADOX

|                             | Batting Average |       |
|-----------------------------|-----------------|-------|
| Baseball Player             | Able            | Baker |
| 1 <sup>st</sup> Half Season | .300            | .200  |
| 2 <sup>nd</sup> Half Season | .500            | .475  |

*Which player has the higher batting average for the season?*

*Could Baker have the higher batting average for the season?*

**YES!**



# THE BATTING AVERAGE PARADOX RESOLVED

| Baseball Player             | At Bats |       | Hits |       | Batting Average |       |
|-----------------------------|---------|-------|------|-------|-----------------|-------|
|                             | Able    | Baker | Able | Baker | Able            | Baker |
| 1 <sup>st</sup> Half Season | 10      | 10    | 3    | 2     | .300            | .200  |
| 2 <sup>nd</sup> Half Season | 10      | 40    | 5    | 19    | .500            | .475  |
| Season                      | 20      | 50    | 8    | 21    | .400            | .420  |

*The moral of the story:*

*Don't take averages of ratios.*

*(The batting average is a ratio, the ratio of hits to at-bats.)*

