

seeking to prove the average by finding the points and innings will have rare figuring as a preliminary.

DECIMALIZING.—This is simply adding a cipher to the right-hand end of every remainder after the dividend has no unused figure left. Adding a cipher to the 20 in 10.20-28 yields 7 and 4 over when divided by 28, and now adding a cipher to the 4 will result altogether in 10.71 with 12 over.

Pay no attention to this remainder unless, if a general average, 10.71 seems to be a tie with some other general average. Such a tie will rarely happen. Should it, add a cipher to the 12, and dividing the 120 by 28 will result in 10.714 (1000ths now, instead of 100ths), with 8 over. If there is still a tie, proceed as before, first making 80 of the 8.

GIVE AND TAKE.—Had the 10.71's remainder been 14 or more, instead of 12, which is less than one-half, the innings, the average would change to 10.72. The arbitrary rule is to ignore the final remainder when it is less than half the innings, but enlarge it and give it to the player when it is half or more.

RECONVERSION.—If for any reason it be necessary to find the number of innings, add ciphers (two will usually be enough in billiards) to the points, and divide by the decimalized average. Thus 107130000(28 innings, with 12 over. To find the points on which a general average is based, innings (50) and average (16) being known, multiply the one by the other— $16 \times 50 = 800$.

GENERAL AVERAGE.—A match of continuous points has but one average, whether it be played in one session or half a dozen; but it is different both in a tournament and in a match of several separate games, a majority to win.

In computing the general average, avoid the easy error of adding all a player's game-averages together, and dividing the product by the number of games. There is only one condition in which this will show the true average, and that is when all the games have innings separately equal in number, howsoever much the points themselves may vary.

Illustration of false and true:—

Inn.	Points.	Game Average.
15	600	40
30	600	20
30	600	20
7	600	85.71
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82	82)2400(29.29	4)165.71(41.43