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Regulars

The hint – world cup medallions



If X_n appears as Xn then your browser does not support subscripts or superscripts. Please use [this alternative version](#).

Let $X_n = T_n - T_{n-1}$ where T_n is the number of medallions collected when you *first* own n different medallions. Hence $X_1=1$, but what do we know about X_n for other values of n ?

It might also help to remember, if X and Y are random variables, the average (or *expectation*) of $X + Y$ is the same as the expectation of X + the expectation of Y . In symbols we may write this as

$$E(X + Y) = E(X) + E(Y)$$

Have fun!

We will publish the best explanation in the next issue, along with the answer to the problem itself. Please submit your answer, with explanation, to [Any comments?](#)



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