TS Module 10: autocorrelation functions HW

(The attached PDF file has better formatting.)

Homework assignment: Sample autocorrelations

A time series has ten elements: {10, 8, 9, 11, 13, 12, 10, 8, 7, 12}.

A. What is the sample autocorrelation of lag 1?
B. What is the sample autocorrelation of lag 2?
C. What is the sample autocorrelation of lag 3?

Show the derivations with a table like the one below. Remember to use the proper number of terms in the numerator, depending on the lag.

Entry	*Entry*	*Deviation*	*Deviation Squared*	*Cross Product Lag1*	*Cross Product Lag2*	*Cross Product Lag3*
1	10					
2	8					
3	9					
4	11					
5	13					
6	12					
7	10					
8	8					
9	7					
10	12					
Avg/tot						
Autocorr						