204B Assignment: Computing the Correlation Coefficient

Your name _____.

Here are raw scores for two hypothetical variables.

X_1	X_2	X_1X_2	x_1	x_2	x_1^2	x_2^2	x_1x_2	z_1	z_2	z_1z_2	$(z_1 - z_2)^2$
6	10										
1	7										
8	9										
2	8										
7	5										
3	9										
7	3										
4	5										
10	6										
0	3										

Now do the following (showing all work and retaining two decimal places for all calculations):

1. The means of the two variables
2. The sum of the cross-products of the two variables and the average cross-product
3. The mean-deviation scores for the two variables
4. The variances and the standard deviations for the two variables
5. The sum of the cross-products of the two mean-deviation variables and their covariance
6. The covariance divided by the standard deviations
7. The standardized *z* scores for the two variables
8. The average cross-product of those two *z* scores
9. Take the average squared difference between those two *z* scores, then divide the result by 2 and subtract that difference from 1
10. Circle all of the Pearson product-moment correlation coefficients that you have calculated

The extra cells have been provided for your calculating pleasure. Enjoy!