

Practice Problem 2, In-Class
Z Formula Solution

Using z scores to calculate Correlation, r

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X	Y	X's z's	Y's z's	(Zx)(Zy)
10	5	0.322	0.212	0.068
5	1	-1.058	-1.481	1.566
4	2	-1.333	-1.058	1.411
9	6	0.046	0.635	0.029
15	5	1.701	0.212	0.360
10	8	0.322	1.481	0.477

StDev -X & Y:	3.625		4.500
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3.911	=Sum(Zx)(Zy)
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Means-X & Y:	8.833		2.363
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Sum [(Zx)(Zy)] / n =	3.911 / 6	= r
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n= 6

Sum [(Zx)(Zy)] / n =	0.652	= r
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Note-1: These standard deviations are based on "n" being used in the denominator in the calculations, i.e., they are descriptive statistics, not inferential ones. In Excel, the formula **=STDEVP(datarange)** calculated these values.