|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Day | NYSE | NASDAQ | nyse-MEAN |  | Square of nyse-mean |  |
| 1 | 0.58 | 0.7 | 0.921 | 1.013 | 0.848241 | 1.026169 |
| 2 | 0.01 | -0.79 | 0.351 | -0.477 | 0.123201 | 0.227529 |
| 3 | 0.43 | 0.85 | 0.771 | 1.163 | 0.594441 | 1.352569 |
| 4 | -0.14 | -0.16 | 0.201 | 0.153 | 0.040401 | 0.023409 |
| 5 | -1.15 | -0.71 | -0.809 | -0.397 | 0.654481 | 0.157609 |
| 6 | 0.15 | -0.02 | 0.491 | 0.293 | 0.241081 | 0.085849 |
| 7 | -1.23 | -1.1 | -0.889 | -0.787 | 0.790321 | 0.619369 |
| 8 | -0.88 | -0.77 | -0.539 | -0.457 | 0.290521 | 0.208849 |
| 9 | -1.26 | -0.78 | -0.919 | -0.467 | 0.844561 | 0.218089 |
| 10 | 0.08 | -0.35 | 0.421 | -0.037 | 0.177241 | 0.001369 |
| SUM | -3.41 | -3.13 | 0 | 0.00 | 4.60449 | 3.92081 |
| MEAN | -0.341 | -0.313 |  |  |  |  |
|  |  |  |  |  | 0.947255556 |  |

The formula for the sample correlation coefficient is:

http://sphweb.bumc.bu.edu/otlt/mph-modules/bs/bs704_correlation-regression/lessonimages/equation_image100.gif = 0.947255556 / Srt of 0.51161

\* 0.435645556

R = 4.6

where Cov(x,y) is the covariance of x and y defined as

http://sphweb.bumc.bu.edu/otlt/mph-modules/bs/bs704_correlation-regression/lessonimages/equation_image101.gif

covariance of NYSE and NASDAQ = 0.947255556

Correlation = 4.6