1. Covariance calculated for two same samples will result in a number

But the correlation coefficient between two identical observations will be always 1

1. The plot looks like option B
2. Sample: 32 32 35 36 37 38 38 39 39 39 40 40 42 45

|  |  |  |
| --- | --- | --- |
| x | error | error sqr |
| 32 | 6 | 36 |
| 32 | 6 | 36 |
| 35 | 3 | 9 |
| 36 | 2 | 4 |
| 37 | 1 | 1 |
| 38 | 0 | 0 |
| 38 | 0 | 0 |
| 39 | -1 | 1 |
| 39 | -1 | 1 |
| 39 | -1 | 1 |
| 40 | -2 | 4 |
| 40 | -2 | 4 |
| 42 | -4 | 16 |
| 45 | -7 | 49 |
| mean=38 |  | variance=11.57 |

Standard deviation = sqrt(variance)= 3.40147