Uncertainty of a Fitted Line (Question 6 from Voltammetry)

1] A pulse polarographic analysis was conducted on a solution with an quinone that gave a peak current at -0.114 V vs. SCE. A calibration curve was conducted with the following results:

|  |  |
| --- | --- |
| Concentration (mM) | Current (uA) |
| 0.095 | 6.64 |
| 0.198 | 13.29 |
| 0.403 | 26.44 |
| 0.594 | 45.49 |
| 0.989 | 60.11 |

An unknown solution of that quinone gave a pulse polarographic peak current of 36.2 uA. What is the concentration of that solution? What is the slope, and intercept of that best fit line? What are the R2, Sr, Sm, and Sb of that fitted line?