pH to pOH calculator

Objective:

Using the input of the user, calculate either the pH or pOH.

Complexity level:

* Medium

Scenario:

* John doe is a student in a chemistry class.
* The student wants to be able to change from pH to pOH quickly, acurately, and efficiently.

Problem statement

1. Write an algorithm to change pH to pOH (practice with some numbers).
2. Write an algorithm to change pOH to pH (practice with some numbers).
3. Write an algorithm that changes kpa to pa/kpb to pb and vice versa.

Expectation outcomes:

Practice gathering user input and demonstrating knowledge of pH to pOH/ kpa to pa.

Reference URL:

1. Bates, Roger G. Determination of pH: theory and practice. Wiley, 1973 .
2. Lim, Kieran F. (2006). ["Negative pH Does Exist"](http://pubs.acs.org/doi/pdf/10.1021/ed083p1465). Journal of Chemical Education 83 (10): 1465. [doi](https://en.wikipedia.org/wiki/Digital_object_identifier):[10.1021/ed083p1465](https://dx.doi.org/10.1021%2Fed083p1465) .
3. Covington, A. K.; Bates, R. G.; Durst, R. A. (1985). ["Definitions of pH scales, standard reference values, measurement of pH, and related terminology"](http://www.iupac.org/publications/pac/1985/pdf/5703x0531.pdf) (PDF). Pure Appl. Chem. 57 (3): 531–542. [doi](https://en.wikipedia.org/wiki/Digital_object_identifier):[10.1351/pac198557030531](https://dx.doi.org/10.1351%2Fpac198557030531) .
4. Sorensen, S. P. L. (1909). "Über die Messung und die Bedeutung der Wasserstoffionenkonzentration bei enzymatischen Prozessen". Biochem. Zeitschr 21: 131–304. Two other publications appeared in 1909 one in French and one in Danish .