

WKst: pH & pOH Calculations

KEY

Chemistry: pH and pOH calculations

Part 1: Fill in the missing information in the table below.

pH	[H ₃ O ¹⁺]	pOH	[OH ¹⁻]	ACID or BASE?
3.78	1.66 x 10 ⁻⁴ M	10.22	6.03 x 10 ⁻¹¹ M	Acid
3.41	3.89 x 10 ⁻⁴ M	10.59	2.57 x 10 ⁻¹¹ M	Acid
8.81	1.55 x 10 ⁻⁹ M	5.19	6.46 x 10 ⁻⁶ M	Base
8.69	2.04 x 10 ⁻⁹ M	5.31	4.88 x 10 ⁻⁶ M	Base
8.46	3.47 x 10 ⁻⁹ M	5.54	2.88 x 10 ⁻⁶ M	Base
12.1	8.45 x 10 ⁻¹³ M	1.90	1.26 x 10 ⁻² M	Base
11.86	1.38 x 10 ⁻¹² M	2.14	7.24 x 10 ⁻³ M	Base
3.40	3.98 x 10 ⁻⁴ M	10.6	2.31 x 10 ⁻¹¹ M	Acid
10.91	1.23 x 10 ⁻¹¹ M	3.09	8.13 x 10 ⁻⁴ M	Base
5.13	7.49 x 10 ⁻⁶ M	8.87	1.35 x 10 ⁻⁹ M	Acid
4.06	8.71 x 10 ⁻⁵ M	9.94	1.15 x 10 ⁻¹⁰ M	Acid
6.41	3.89 x 10 ⁻⁷ M	7.59	2.57 x 10 ⁻⁸ M	Acid
4.16	6.92 x 10 ⁻⁵ M	9.84	1.45 x 10 ⁻¹⁰ M	Acid
0.98	1.06 x 10 ⁻¹ M	13.0	1.00 x 10 ⁻¹³ M	Acid
10.18	6.61 x 10 ⁻¹¹ M	3.82	1.51 x 10 ⁻⁴ M	Base
7.93	1.17 x 10 ⁻⁸ M	6.07	8.53 x 10 ⁻⁷ M	Base
7.05	8.91 x 10 ⁻⁸ M	6.95	1.12 x 10 ⁻⁷ M	~Base
9.33	4.73 x 10 ⁻¹⁰ M	4.67	2.14 x 10 ⁻⁵ M	Base
12.67	2.14 x 10 ⁻¹³ M	1.33	4.68 x 10 ⁻² M	Base
12.0	1.0 x 10 ⁻¹² M	2.01	9.87 x 10 ⁻³ M	Base
11.68	2.09 x 10 ⁻¹² M	2.32	4.79 x 10 ⁻³ M	Base
7.04	9.22 x 10 ⁻⁸ M	6.96	1.10 x 10 ⁻⁷ M	~Base
1.76	1.74 x 10 ⁻² M	12.24	5.75 x 10 ⁻¹³ M	Acid
2.70	2.00 x 10 ⁻³ M	11.3	5.39 x 10 ⁻¹² M	Acid