Chemistry by the numbers

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(This puzzle was first printed in the Summer-Fall 2006 NEACT Journal (New England Association of Chemistry Teachers). It is just a coincidence that there are 13 items – our favourite number.)

There’s a puzzle going around the Internet for a few years now that challenges the reader to decipher some common numbers. For example:

• Given 12 = l. in a F., you would deduce that to be 12 INCHES in a FOOT.
• Similarly, 26 = L. in the A. stands for the 26 LETTERS in the ALPHABET.

This issue’s puzzle applies this game to CHEMISTRY. I am indebted to an old friend, Larry Lemmert of Neenah, WI for suggesting the idea to me, and contributing many of the items below. Larry is a retired chemistry teacher whom I met at a WWF (Woodrow Wilson Fellows) Institute many years ago. We’ve collaborated to find a baker’s dozen phrases….. some easy, some not! As far as units are concerned, you’re on your own; sometimes they are part of the clue, sometimes not specified. An “s” after an abbreviation implies a plural.

How well can you do? Getting all thirteen makes you a chemical genius! Share them with your students.

1. 2.999 x 10^8 = S. of L. in a V.
2. 22.4 = M.V. of an I.G. at STP
3. 7 = pH of P.W. at 25 D.C.
4. +3 = O.N. of I. in Fe$_2$O$_3$
5. 6.02 x 10^{23} = N.P. in a M.
6. 105 = D.s between O–H B.s in a W.M.
7. 0.082 = I.G.L.C.
8. 2,10,18,36,54,86 = A.N.s of the N.G.s.
9. 1 = S.G. of W. at 4 D.C.
10. 298 = S.S.T., in K.
11. 1.29 = D. of A. at STP
12. 6 = S.N. in O.G.
13. -1.86 = M.F.P.D of W.

Answers on page 8

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