## "By the Numbers" Challenge


#### Abstract

Challenge: The phrase "Elementary, my dear Watson" never appeared in any of the Sherlock Holmes stories. If it had, it would have been especially appropriate for Holmes to tell Watson, when he posed the following puzzle: Explain the sequence $74,85,16,8,7$.


Solution: Each number in the sequence refers to the atomic number of an element in the standard periodic table of the elements. In addition to the number, the periodic table shows an abbreviation for each element in the form of a one, two or three letter string.

The sequence begins with 74, the atomic number of Tungsten, standard abbreviation W
85 is Astatine, abbreviated At
16 is Sulfur, abbreviated S
8 is good old Oxygen, abbreviated 0
7 is Nitrogen, abbreviated $\mathbf{N}$
The abbreviations of the five elements referred to in the sequence spell WATSON.

