Mohammad K Azarian* (azarian@evansville.edu), Mathematics Department, University of Evansville, 1800 Lincoln Avenue, Evansville, IN 47722. On the hyperfactorial function, hyper triangular function, and the discriminants of certain polynomials.

For any natural number n, let Hf(n) be the hyperfactorial function of n, and let Ht(n) be the hypertriangular function of n. We show that Hf(n) and Ht(n) can be written as a product of discriminants of certain polynomials, and as a sum of discriminants of these polynomials, respectively. Also, we use a known result to present an upper and a lower bound for Ht(n). Finally, we pose two questions for the reader. (Received August 23, 2007)