1003-X1-204 **William M. Wagner*** (`William_M_Wagner@SBCGlobal.Net`), Wagner Machine Works, 1399 A Lake Shore Dr., Columbus, OH 43204-4865. *Pascal and Poker.*

Observation I: It is well known that the number of physical poker hands of five cards where the Ace plays the role either that of a high-card or that of a low-card but not both is C(52,5) = 2,598,960. However, because the Ace plays the dual role of both high-card and low-card in a straight, the number of logical (evaluations of) poker hands of five cards is equal to C(52,5)+4.

Observation II: The number of high-card poker hands is given by the array: [Ace: 503,880; King: 335,580; Queen: 213,180; Jack: 127,500; Ten: 70,380; Nine: 34,680; Eight: 14,280; Seven: 4,080; Six through Ace low: Zero]. (Curiously, of the figures for the denominations of Seven and higher, only the figure for the Jack ends in 00; the corresponding figures for all the others end in 80.) It is easily seen that the fourth differences of the elements of the array Six and higher are all equal to 1020, hence, the corresponding fifth differences are all equal to zero.

Observation III: Observation II is not a consequence of Observation I, rather, Observation II can be explained in terms of Pascal's Triangle. (Received August 27, 2004)