

1145-05-1161 **Ji Young Choi*** (jychoi@ship.edu), 1871 Old Main Dr, Shippensburg, PA 17257. *Digit Sum of Integers Generalizing Binomial Coefficients*. Preliminary report.

For any positive integer $b > 1$, we use the digit sum of base- b representation of integers to define four different generalization of binomial coefficients. One generalization is identified as the extended binomial coefficients, and we express every other generalization in terms of the extended binomial coefficients. We also express every generalization in terms of binomial coefficients and find the explicit formula for each generalization. (Received September 19, 2018)