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Daniel Mertz Kane* (dankane@mit.edu), Random Hall, 290 Massachusetts Avenue, Cambridge, MA 02139. *The number of ways of expressing t as a binomial coefficient.*

For $t > 1$, let $N(t) = |\{(n, m) \in \mathbb{N} : t = \binom{n}{m}\}|$ be the number of ways of expressing t as a binomial coefficient. Erdős proved using number theoretic methods that $N(t) = O\left(\frac{\log t}{\log \log t}\right)$. We discuss an improvement of this bound using analytic methods bounding the number of points on smooth curves to obtain $N(t) = O\left(\frac{\log t \log \log \log t}{(\log \log t)^2}\right)$. (Received September 25, 2006)