

## A Note on an American Mathematical Monthly “Gem”

In the Feb. 2011 issue of the *American Mathematical Monthly*, pp. 175-177, there is a “probabilistic” proof (by G. Chang and C. Xu) of the identity  $\sum_{i=0}^n \binom{2i}{i} \binom{2n-2i}{n-i} = 4^n$ , and of a “generalization”. My dear editors (and referees) of the AMM, have you ever heard of the Binomial theorem? Just extract the coefficient of  $x^n$  in  $((1-4x)^{-1/2})^2 = (1-4x)^{-1}$ , and as for the “generalization” do likewise to  $((1-4x)^{-1/2})^m = (1-4x)^{-m/2}$   $\square$ .

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