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Proof without Words: A Graph Theoretic Decomposition of Binomial Coefficients

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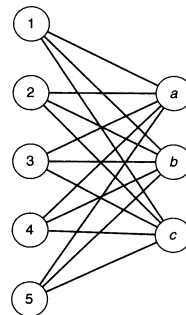
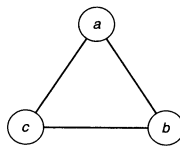
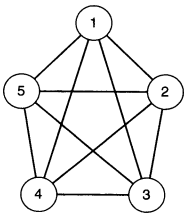
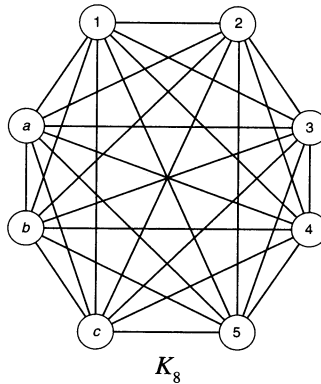
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$$\binom{n+m}{2} = \binom{n}{2} + \binom{m}{2} + nm$$

E.g., $n = 5, m = 3$.



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