

Summation problems of high school mathematics solved with selected algorithms of computer algebra

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In mathematic classes at high schools, colleges and universities, pupils and students solve summation problems with classic methods – usually a well-known formula for the sum of geometric series or a telescoping method for some other series. The evolvement of computers opened a new way of summations and since the 1980's the computer summation algorithms have been developed. In the article, the authors present the summation of some finite and infinite series using two chosen algorithms – Gosper's algorithm and Sister Celine's method.