

SUM OF POWERS OF CONSECUTIVE NATURAL NUMBERS BY CONTOUR INTEGRALS

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We are familiar with the formulae to the sum of consecutive natural numbers, the sum of squares of consecutive natural numbers and the sum of cubes of consecutive natural numbers up to a fixed natural number n . Usually, we prove those results by using elementary mathematical tools, such as the principle of mathematical induction. In this paper, we obtain a different methodology to calculate the above sums using contour integral as a basic tool.

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