

## Computing two special cases of Gauss hypergeometric function

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### ABSTRACT.

In this paper, a computational technique is given to re-obtain the explicit forms of two cases of the Gauss hypergeometric function  ${}_2F_1(a, b, c; x)$  for  $b = a + 1/2$  and  $c = 1/2, 1/3$ . Some special identities related to the two aforesaid cases are also introduced. Finally a special Maple package, called FormalPowerSeries (FPS), is used to automatically compute some results given in the paper.

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