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# On Stokes'formula and radial derivatives of a harmonic function

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In this paper we first prove that the integral of Stokes' function over the whole sphere surface equals zero. As a consequence, the well-known Stokes' formula can be reduced to such a form that eliminates the singularity of Stokes' integral at point $\psi$=0. Then we develop the integral formulas for the second, third and fourth order radial derivatives of a harmonic function. Appling these formulas to gravity anomaly, we get the expressions for the 2nd, 3rd and 4th order radial derivatives of gravity anomaly at sphere surface, which are useful for continuing gravity anomaly.