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Frank Patane*, 800 Lakeshore Dr, Samford University, Math Department, Homewood, AL 35229. *A proof of Hecke's formula for binary quadratic forms.*

In *Mathematische Werke*, Hecke defines the operator T_p and describes their utility in conjunction with theta series of quadratic forms. In particular, he shows that the image of theta series associated with classes of binary quadratic forms in $\text{CL}(\Delta)$ is again a theta series associated to a collection of forms in $\text{CL}(\Delta)$. We state and prove an explicit formula for the action of T_p on a binary quadratic form of negative discriminant. (Received September 04, 2019)