WHEN THE PRODUCT OF AN ARBITRARY NUMBER OF EIGENFORMS IS AGAIN AN EIGENFORM

BEN LINOWITZ

ABSTRACT. In 1999 Duke showed that there are exactly 16 eigenform product identities $fg = h$, where f, g, h are all eigenforms on $SL(2, \mathbb{Z})$. Duke's result has since been generalized by a number of authors. In this talk we'll briefly survey some of the work that Duke's theorem has inspired and will discuss further generalizations.