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Title: On positive real zeros of theta and L -functions associated with real, even and primitive characters

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Let D range over the positive fundamental discriminants. Let $\theta(t, \chi_D)$, $t > 0$, denote the theta function associated with the real, even and primitive Dirichlet character of conductor D . On the one hand, we prove that there are infinitely many positive discriminants D for which $\theta(t, \chi_D)$ has at least one positive real zero. On the other hand, we prove that for a given positive real number t_0 , there are at least $\gg X/\log^{13/2} X$ positive fundamental discriminants $D \leq X$ for which $\theta(t_0, \chi_D) \neq 0$.

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