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*Extending Zagier's Theorem on Continued Fractions and Class Numbers.* Preliminary report.

If  $p = 3 \pmod{4}$  is prime and the class number  $h(\mathbb{Q}(\sqrt{p})) = 1$  then a somewhat classical theorem of Zagier provides a formula for  $h(\mathbb{Q}(\sqrt{-p}))$  in terms of the negative continued fraction expansion of  $\sqrt{p}$ . We will present a generalization of this result to a family of non-prime radicands. We will also discuss our work in progress in combining this theorem with particular prime producing polynomials. (Received February 19, 2013)