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*Diophantine equations with the Ramanujan  $\tau$  function of factorials,  
Fibonacci numbers, and Catalan numbers,*  
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**Abstract**

In this note, we solve various Diophantine equations of the type  $|\tau(x)| = y$ , where  $\tau$  is the Ramanujan  $\tau$  function and  $x$  and  $y$  are integer variables restricted to values of factorials, Fibonacci numbers, and Catalan numbers.