

Amicable pairs





Two integers N and M are said to be [amicable pairs](#) if $N \neq M$ and the sum of the [proper divisors](#) of N ($\text{sum}(\text{propDivs}(N)) = M$) as well as $\text{sum}(\text{propDivs}(M)) = N$.

Example:

1184 and **1210** are an amicable pair, with proper divisors:

- 1, 2, 4, 8, 16, 32, 37, 74, 148, 296, 592 and
- 1, 2, 5, 10, 11, 22, 55, 110, 121, 242, 605 respectively.

Calculate and show here the Amicable pairs below 20,000 (there are eight).

	<code>amicablePairsUpTo</code> should be a function.
	<code>amicablePairsUpTo(300)</code> should return <code>[[220, 284]]</code> .
	<code>amicablePairsUpTo(3000)</code> should return <code>[[220, 284], [1184, 1210], [2620, 2924]]</code> .
	<code>amicablePairsUpTo(20000)</code> should return <code>[[220, 284], [1184, 1210], [2620, 2924], [5020, 5564], [6232, 6368], [10744, 10856], [12285, 14595], [17296, 18416]]</code> .