Counting modulo pairs

[Award] **10 pts**

[Category] **Math**

Let *f*(*m*) denote the number of integer pairs (*x*, *m*) such that there exists a positive integer y satisfies *xy* = 0 (mod m), where *x* and *m* are both positive integers and 1 <= *x* <= *m*. For example, *f*(12) = 2, as two pairs (6, 12) and (12, 12) meet the condition.

Define. You are given S(10) = 16 and S(1000) = 5764.

Find S(1014).

Thanks to **baihacker** for the idea.

[Answer] **40848001214717808**