Sum of phi

[Award] **11 pts**

[Category] **Math**

Let



where  is [Euler's totient function](https://en.wikipedia.org/wiki/Euler%27s_totient_function).

You are given S(2) =  = 5, S(50) = 696335 and S(5000) mod 1000000007 = 397838656.

Find S(50000000) mod 1000000007.

[Answer] **819657841**