multiplicative Inverse! -13 mod 23 We are looking for x such that! (-13). 2 = 1 (mod 23) = 57 stalmun & Jubikan Since, -13 = 10 (mad 23) this is equivalent to find; ob not got lox = 1 (mod 23) thereon svilles of using extended audidean algorithm. $23 = 2 \times 10 + 3$ 3 = 88 borne = 1 - 100010 = 3×3 +1 3 = 3×1 +0 Back substitutes 1=10-3×3 $= 10 - 3 \times (23 - 2 \times 10)$ $=7\times10-3\times23$ -: modular inverse of 10 mod 23 (-13 mod 23) is

-17 mod 23 bom 81- sersone evitarilgithing To compute - 17 mod 23, we want the least non-neglis tresidue, a number 're' such that -17 = R (mod 23); 0 < R < 23 we can do this by adding 23 until we get a positive result: -17 mod 23 = 600 billions behander from So, -17 med 23=6 (Ams.) ex2-01=1 = 10-3x(23-2x10) 20 x8 - 01 x F =

moduber inverse of 10 med 23 (-13 mod