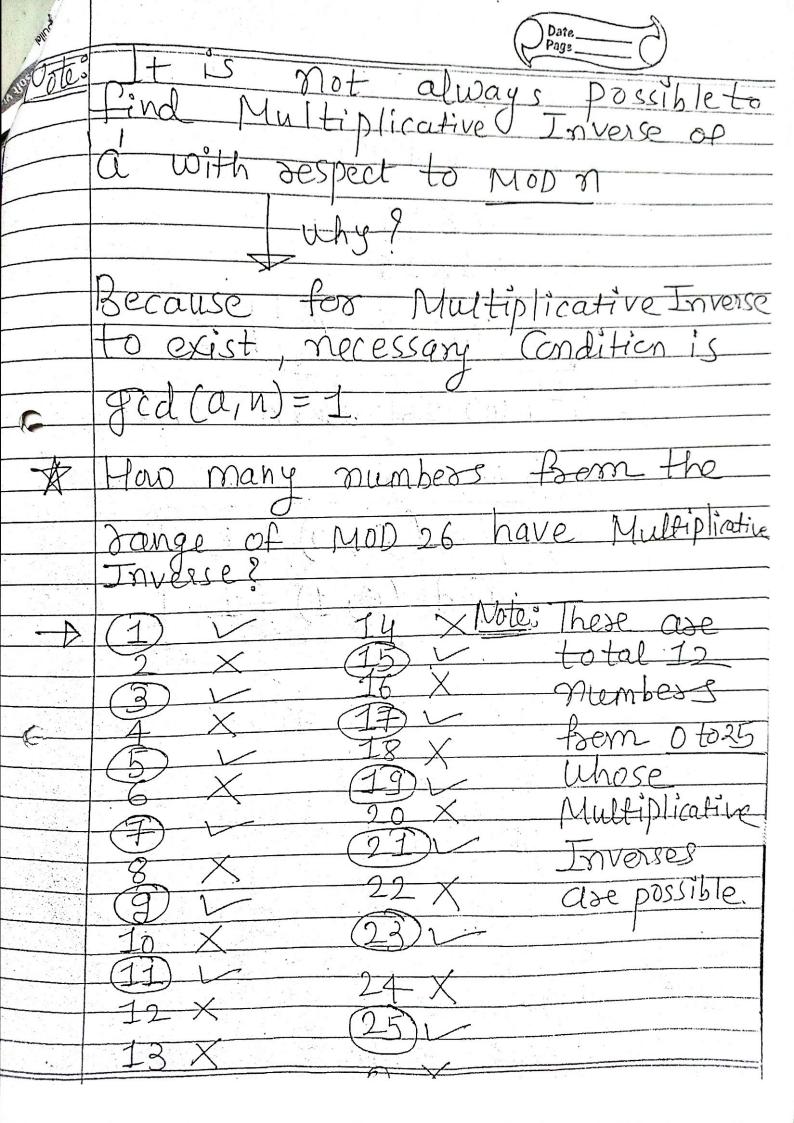
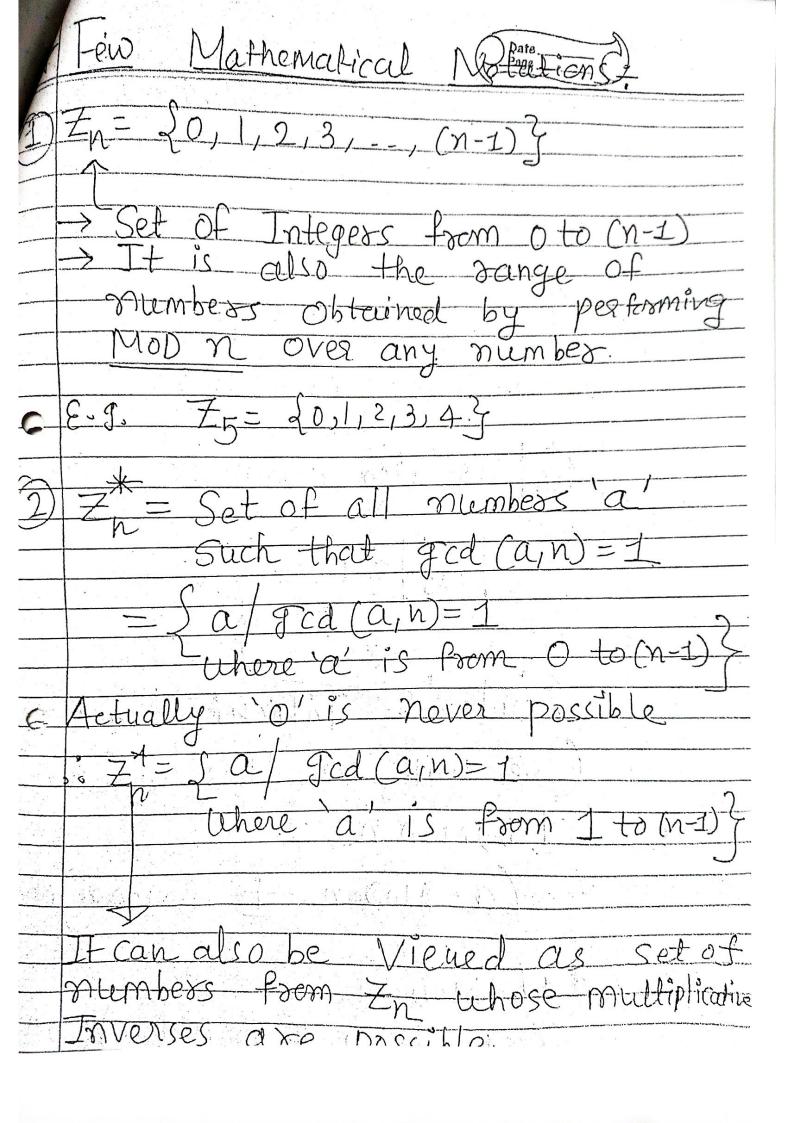
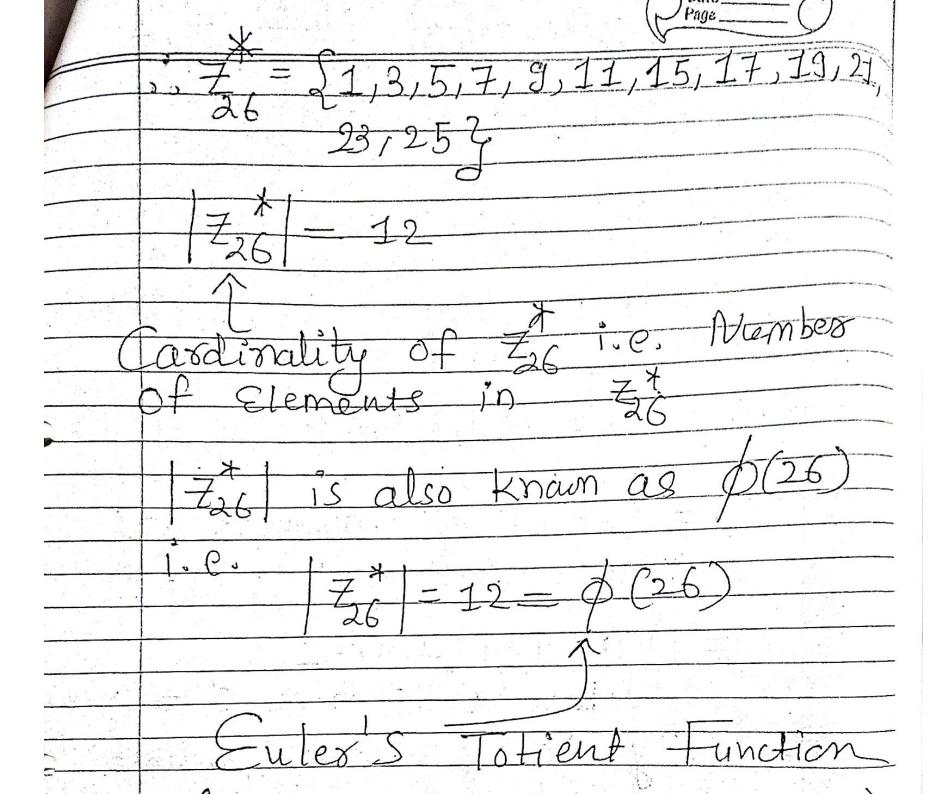
Lecture-2 Multiplicating with respect MOD dentity n-verse with respec if MOD additive Inverse other with LOD 13.13



Vote: May O MoD 26 is not possible.

Becomes Because Ted (0,26) · · · [gcd(0,26)=26] #1 000 TMOD 26 Doesn't Chist Remember Jcd (a, 0) = a





following sure helps to sind the vouse of $\phi(n)$ $\phi(1) = 1$ $\phi(p) = p-1$ is p is a prime $\phi(mxn) - \phi(m) \times \phi(n)$ if m and n are sciutively prime (4) p(pe) = pe-pe-1 is p is a prime $ex |776| = \phi(26)$ = p(2x13) $= \phi(2) \times \phi(13)$ - (2-1) \times (13-1) \$ (16) = \$ (24) EX = 24-24-1 $Z_{16} = \{0,1,2,3,4,5,6,7,8,9,10,11,\dots$ 12,13,14,15, 53 Zig = {1,3,5,7,9,11,13,15}

3) (a ± b) MOD n = (a MOD n ± b MOD n) MOD N (a * b) MOD n = (a MOD n * b MOD n) MOD N

mod n IML med n a mod n (a+a+...+a) mad n m times) a (a mod m) Camodn) I mud n Congauent with b mod n ., woitten as (mod n)