PK = YA = and mod 2 =76 mod 15 Guin 9=15, m=13, K= 31 gcd(k, 9-1)=1 => gcd(31,14)=1 lemp key: S, = a mod q = 731 mod 15 = 134 K' : K mod (9-1) = 61 mod 14 = 5/ Sz = K - (m - M & S.) mad (9-1) = 5(73-16x3) mod 14 verification: V₁ = a^m mod q = 7¹³ mod 15 = 7 // V₂ = Y_ASI S₇S2 = 1¹³ 13⁹ mod 15 = 13// 501n (1.3) k1(u1.v)+ ka(u2.v).

 $u1.v \Rightarrow (3,4,5).(5,3,2) = (2.5+4.3+5.2) = (10+12+10) = 32$ $u2.v \Rightarrow (7,1,2).(5,3,2) = (7.5+1.3+2.2) = (35+3+4) = 42$

 $k1(u1.v) = 3 \times 32 = 96$ $k2(u2.v) = 4 \times 42 = 168$

.. k1 (u1·v) + k2(u2·v) = 96 + 168 = 264

	Petro _ / _ / _ ·
	$x = 3 \pmod{4}$ $a_1 = 23$
	$X \equiv 4 \pmod{7}$ $92^{2} \forall 4$
	$x \equiv 1 \pmod{9}$
	-X = 0 (mad) 11 acu = 0.
	O (MICH) (
	M= 2772 M1= 4
	M1 = 693 W2 = 7
	MI = 369 M3 = 9
	Mz = 358
	thu=
	Migi=1 (modmi) Mzgz=1 (modwz)
	693 y1 = 1 (mod 4) 369 y2 = 1 (mod 7)
	y1=1 y2=3
	M3y3 = 1 (mod m3)
	308 xy3 = 1 (mod 9)
1	
Ì	93=5
Ì	
i	X = 693 x 3x 1 + 369 x 3 x4 + 308 x 5x 1 (mod 2772)
Ì	8047 (mod 2772)
46	

```
X = 3(mod.5)
  gx = 1 (mod =)
   X = 6 (wods)
                   mi =
  az = 1
                   M2 - 7
  a3 = 6
                  M3 = 8
  M = 5 \times 7 \times 8 = 280
  M_1 = 280 = 56
                          X2 HaiHiyi+
 H_2 = \frac{280}{7} = 40
                             92M242+
                            93 M345 (MODE)
 M3 = 280 = 35
Migi = 1 (mod mi)
                       H242 = 1 (mod m2)
5691=1 (Mod 5)
                       40 yz=1 (mod 7)
                        5 y2 = 1 (mod 7)
15 y2 = 3 (mod 7)
141 = 1 (mods)
                          142=3 (MO7)
41=1
                          5230° 42=3
M343 : 1 (mod m3)
 35 4321 (Mod 8) X=3x 56x1+1x 40x3+
 343 21 (mod 8) 6×35×3 (mod 280)
943 2 3 (mod 8) = 918 (mod 280)
 143 2 3 (mod 8)
```