lee # 13. Pelatins.

Anti Symmetrici

Yaib EA if (aib) ERA (bia) ER -> azb.

EK7 1462

Rz { }. V

Az f 1,2,3,43.

R25(21)3.V

R2 & (2,2), (2,1)}

R2 9 (2, 2), (211), (1,2) }

Az & 2, y 3.

Petermine all Anti Symmetric Relations on A.

AKAZ & (x,x), (x,y), (y,x), (y,y)?.
pows (ArA) 2 & \$ (x, x) { (x, y) { (x, y) } }.

- - - - ((x1x),(x1y), (y,x),(y,y)

Transfire: Yxy, Z EA

if (xiy) ERA(g, E) ER -> (xiz) ER.

P (7 1462 R2 { }.V

Az f 1,2,3,43.

R2 8 (11) V

Rz & (1,2), (2,2) } V

R2 & (1,2),(2,3),(2,2),(2,4),(4,6)q. X.

Pubs

Reflexive $\forall a \in A \quad (a,b) \in A \quad (a,a) \in R.$

Yazzt a divides a. V

Symmetere Hais Et 1/2 (bia) ER.

tais ≥ Zt if a divides b → . b divides a · X.

(111) ER → (41.2) ER.

Anti Symmetriz HaibEA If (aib) ERA (bia) ER - azb.
Vaib EZ+ if a divides bA b divides a - azb.

Transition Harbic EA if (a.b) ER A(bid) ER -7 (a.c) ER.

Varbic EZT if a divides to A b divides c -> a divides C.

Q6 467;
En P2q(a,b) | a = ±6}.

R, d(a,b) | a = 50 or a = -67

Ref (a,b)]. ab = 20 or.

R-1 = { (b, a) | (a, b) ER7. R = f (a, b) | (a, b) & R3. 122 f (113), (214) f. P-12 f (311), (4,2) f. R = f(a1b) ((a1b) & R3.

P-12 {(3,1), (4,2)3.

Azhlizh. AKA = h (111), (12), (2110), (212)}. R= AxA-R= {(111),(211),(212)} R25 (1,2)3.

EKIT P 465

Az & 1,2,33. Bz & 1,2,3,47,

P128 (111) (212), (3,3) {. Rez & (111), (112), (113), (114) }.

ARB.

RIARZZ (UI) }

RUP2 = {(11), (2,2), (3,3), (112), (113), (114) {. RI-RZZ & (2,2), (3,3).

Ri- Riz ?

Composition.

AKB BKC.

(a,b) (bic).

SoR (aic).

(aic) & SoR if (aib) ERM (bic) ES. - Caic) ESOR.

E x 20 465

Az of 1,2,3?. B= 511213,49. Cz & 01/129.

R2 & (11 D, (1, 4), (2,3), (3,1), (5,4){

S = { (1,0), (2,0), (3,1),(8,2),(4,1)}

Softz & (40), (111), (211), (2,2), (3,0), (311) 4.

Sof(2 of (40), (111), (211), (212), (310), (311) 4.

SOR + ROS. (HVA).

lo R 2 R² R² o R 2 R³

Rh-1. R 2 R4

HW P466-468 (1-46). 尼x.