Soal Latihan Matematika Diskrit

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PRATAMA INDO PLASTIK

① (i) Relasi ekuivalen → a, c,

(ii) Relasi Terurut Sebagian → d, f

② (a) Elemen Maksimal = b, m

Elemen Minimal = a, b, c

(b) $BA\{a,b,c\} = \{a,d,i,h,j,K,l,m\} \cap \{b,d,e,i,h,j,K,l,m\}$

$\cap \{c,f,g,K,l,m\}$

$= \{K,l,m\}$

$Sup(M) = \{K\}$

(c) $BB\{f,g,h\} = \{f,c\} \cap \{g,f,c\}, \{h,d,e,a,b\}$

$= \emptyset$

$Inf(N) = -$

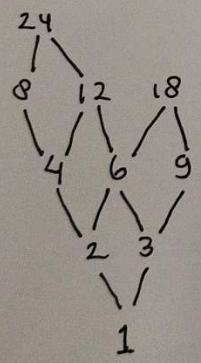
③. $P = \{1, 2, 3, 4, 6, 8, 9, 12, 18, 24\}$

PRATAMA
INDO PLASTIK

$R = \{(1,1), (2,2), (3,3), (4,4), (6,6), (8,8), (9,9), (12,12), (18,18), (24,24),$
$(1,2), (1,3), (1,4), (1,6), (1,8), (1,9), (1,12), (1,18), (1,24), (2,4),$
$(2,6), (2,8), (2,12), (2,18), (2,24), (3,6), (3,9), (3,12), (3,18),$
$(3,24), (6,12), (6,18), (6,24), (8,24), (9,18), (12,24), (4,8),$
$(4,12), (4,24)\}$

$Sisa = \{(1,2), (1,3), (2,4), (2,6), (3,6), (3,9), (4,8), (4,12), (6,12), (6,18),$
$(8,24), (9,18), (12,24)\}$

ⓐ. Diagram Hasse



ⓑ. Elemen Maximal = (24) & (18)

Elemen Minimal = (1)

ⓒ. $A = \{3, 4\}$

$BA(A) = \{3, 6, 9, 12, 18, 24\} \cap \{4, 8, 12, 24\}$
$= \{12, 24\}$

$Sup(A) = \{12\}$

ⓓ. $Q = \{8, 18\}$

$BB(Q) = \{8, 4, 2, 1\} \cap \{18, 6, 9, 2, 3, 1\}$
$= \{2, 1\}$

$Inf(Q) = \{2\}$

④. Jawabannya sg "b", karena pada pertama kali dicoba antara $\{d, e\}$ → tidak memiliki Infimum

No. 4 ⇩