Soal Latihan Matematika Diskrit

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PRATAMA
INDO PLASTIK

1. (i) Relasi ekuivalen → a, c, ✓

   (ii) Relasi Terurut Sebagian → d, f ✗

   cek lagi ya , apakah d terurut sebagian ? ✓

2. (a) Elemen Maksimal = b, m

   Elemen Minimal = a, b, c

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

   ∩ $\{c, f, g, k, l, m\}$

   = $\{k, l, m\}$ ✓

   $\boxed{Sup(M) = \{k\}}$

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

   = ∅ ✓

   $\boxed{Inf(N) = -}$

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

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

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 $= \underline{24}$ & ⑱
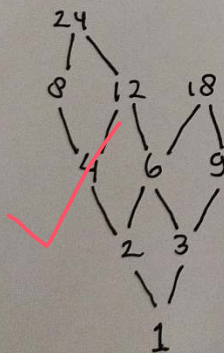
Elemen Minimal $= \underline{①}$

ⓒ $A = \{3, 4\}$

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

$= \{12, 24\}$

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

ⓓ $Q = \{8, 18\}$

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

$= \{2, 1\}$

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

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④ Jawabonnya yg "b", karena pada pertama kali dicoba antara $\{d, e\} \rightarrow$ tidak memiliki Infimum

No.4 ↑

Coba lihat lagi, no 4 yg ditanyakan apa ya