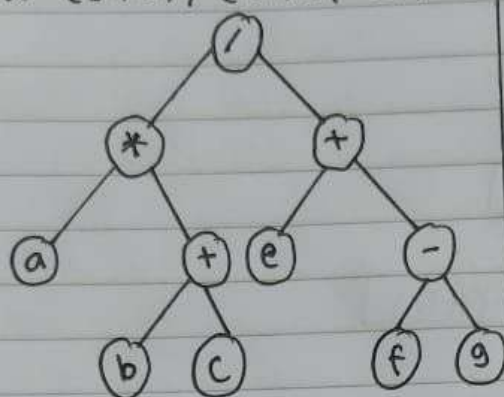
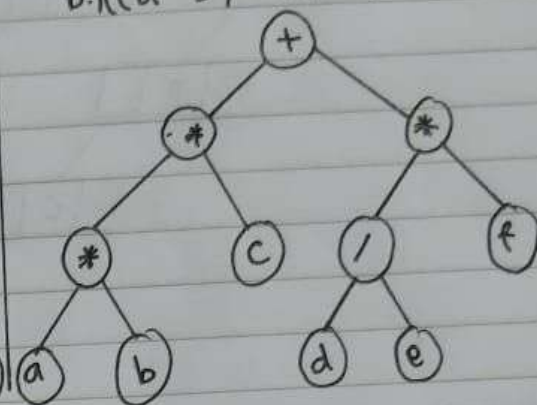


1. Buatlah binary tree dari ekspresi aritmatika berikut.

a.) $a * (b + c) / (e + (f - g))$



b.) $((a * b) * c) + (d / e) * f$

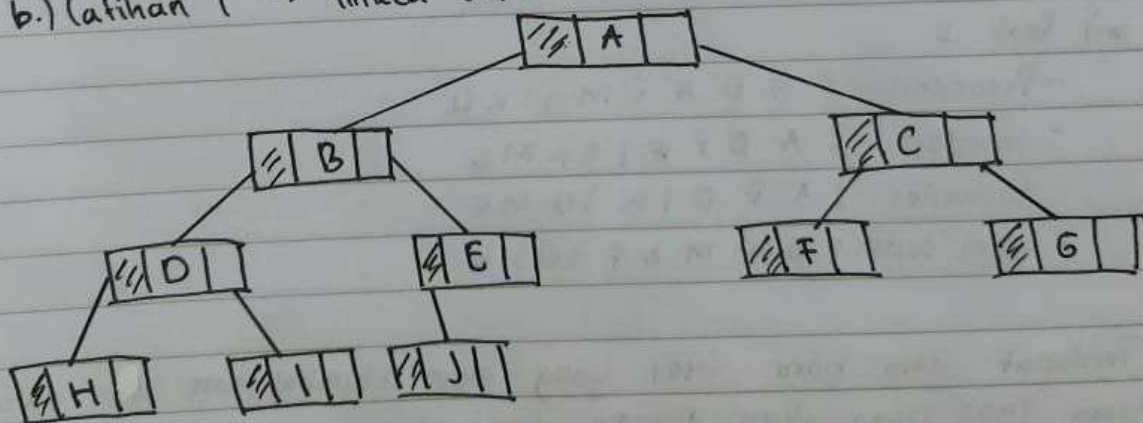


2. Representasikan tree berikut dengan ilustrasi array dan linked list :

a.) latihan 1 → array

Index = 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14
 Node = A B C D E F G H I J " " " " "

b.) latihan 1 → linked list



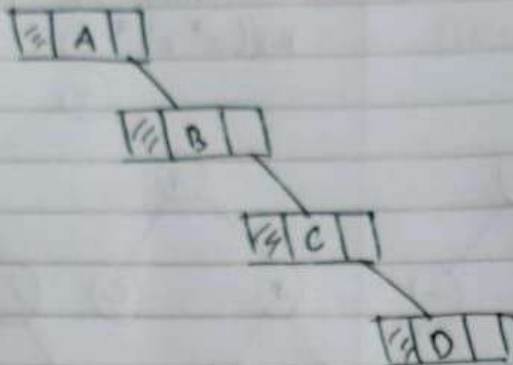
c.) latihan 2 → array

Index = 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14
 Node = A " B " " " C " " " " " " " D

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4.) latihan 2 \rightarrow linked list



3. Telusuri pohon biner berikut dengan menggunakan metode preorder, inorder, postorder dan level order traversal.

a.) soal 1

- Preorder : $+$ 3 5 $-$ 2 $/$ 8 4

- Inorder : 3 $+$ 5 $-$ 2 $/$ 8 4

- Postorder : 3 5 $+$ 2 8 4 $/$ $-$

- Level order : $+$ $-$ 3 5 2 $/$ 8 4

b.) soal 2

- Preorder : G D A F M J I K Q

- Inorder : A O F G I J K M Q

- Postorder : A F O I K J Q M G

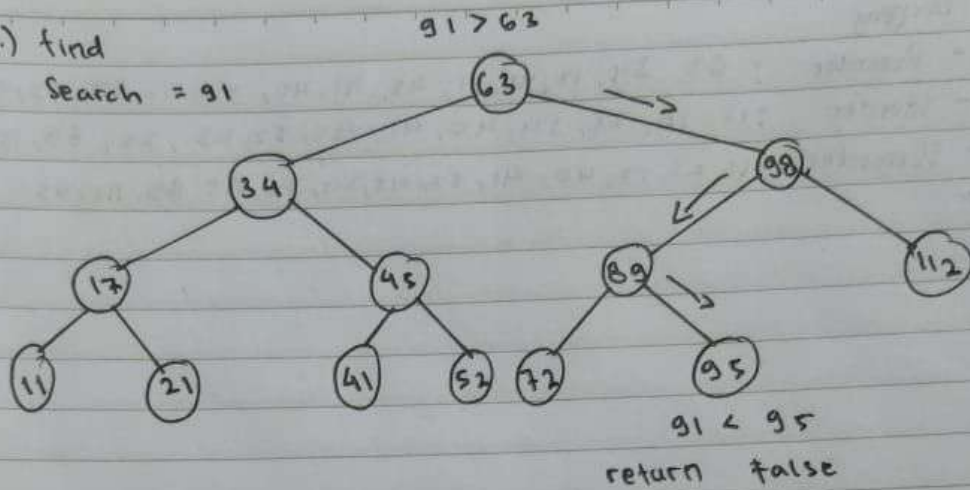
- Level order : G D M A F J Q I K

4. Terdapat data baru (40) yang akan ditambahkan dan data lama (98) yang akan dihapus. Ilustrasikan operasi (find, insert, delete, display) yang akan dilakukan untuk mengatasi penambahan dan penghapusan data tersebut.

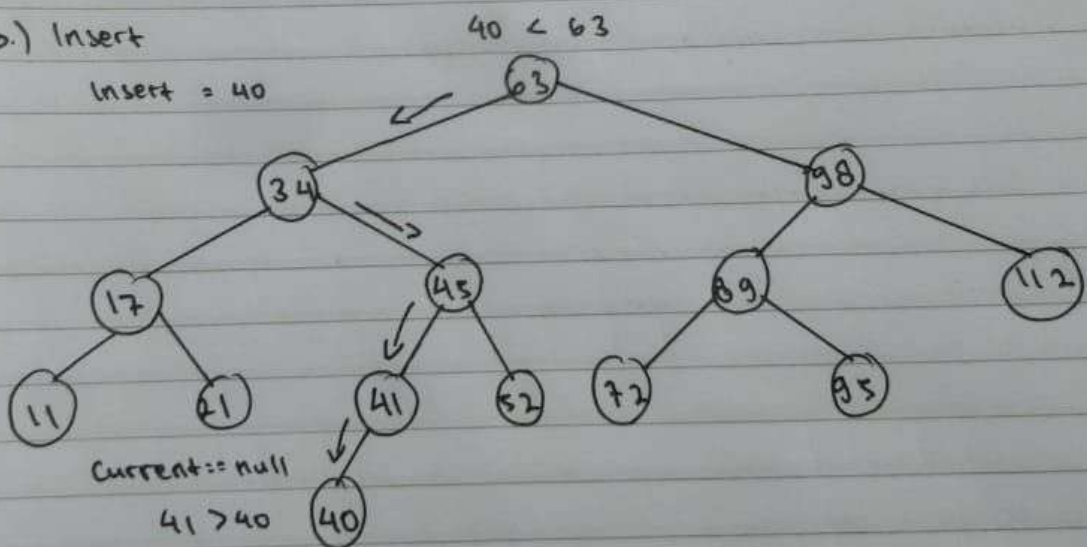
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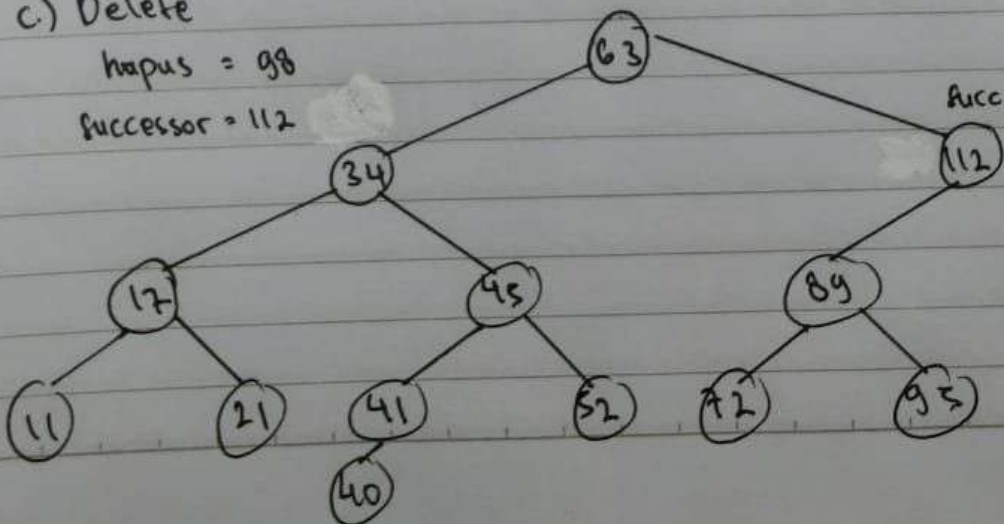
a.) find
Search = 91



b.) Insert
Insert = 40



c.) Delete
hapus = 98
Successor = 112



No. Azana Cindy L.

Date 21/05/24.

d.) Display

- Preorder : 63, 34, 17, 11, 21, 45, 41, 40, 52, 112, 89, 72, 95
- Inorder : 11, 17, 21, 34, 40, 41, 45, 52, 63, 72, 89, 95, 112
- Postorder : 11, 21, 17, 40, 41, 52, 45, 34, 72, 95, 89, 112, 63