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First Name   Last Name

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First Name   Last Name
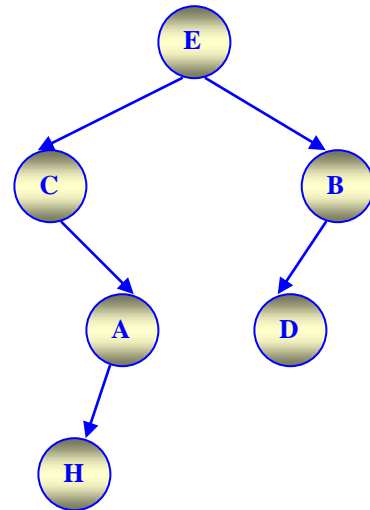
Review: BINARY TREES

1. Show the result of the following recursive function using the tree given below.

```
Algorithm traverse( root )

    if( root is NULL )
        print( "*" )
    else
        traverse( root->right )
        print   ( root->data  )
        traverse( root->left  )
    end if
    return
end traverse
```


2. Give the <u>breadth first</u>, <u>pre-order</u>, <u>in-order</u>, and <u>post-order</u> traversals for the above tree:

Breadth first traversal:

Pre-order traversal:

In-order traversal:

Post-order traversal:

3. Draw the binary tree whose in-order and post-order traversals are given below:

in-order: **D B A G H E F C**

post-order: **D B H G F E C A**

4. Draw a binary tree for the following expression, then use it to write the postfix form of this expression:

A * B – C * (2 + D) + 5