



<http://algs4.cs.princeton.edu>

## 3.3 RED-BLACK BST DEMO

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# Red-black BST construction demo

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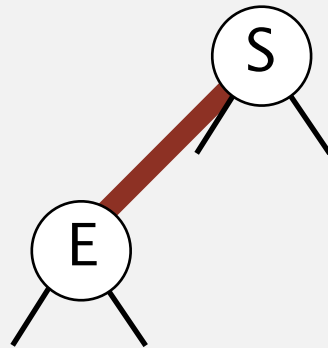
insert S



# Red-black BST construction demo

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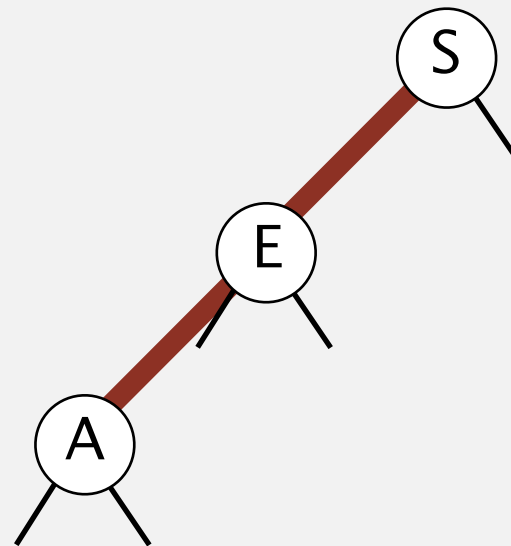
insert E



# Red-black BST construction demo

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insert A

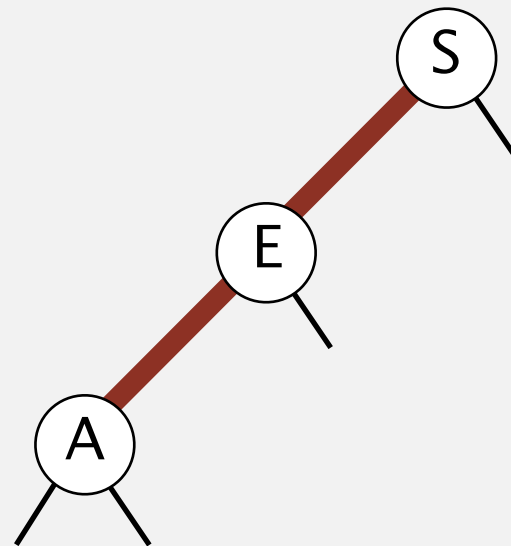


# Red-black BST construction demo

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insert A

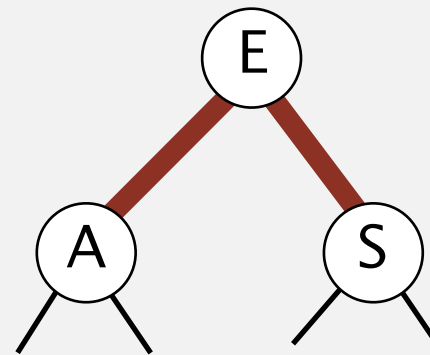
two left reds in a row  
(rotate S right)



# Red-black BST construction demo

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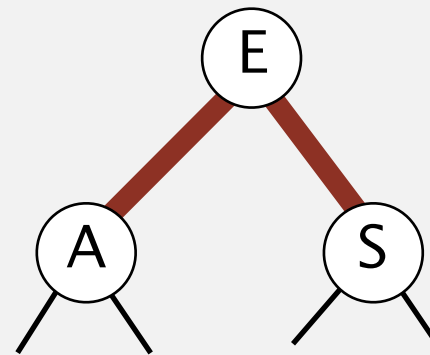
both children red  
(flip colors)



# Red-black BST construction demo

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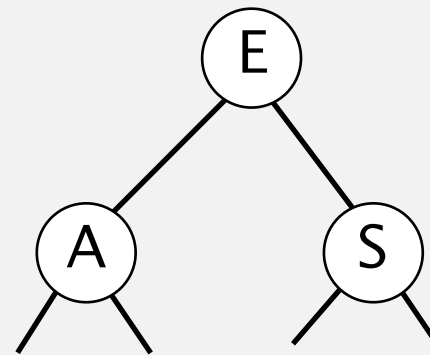
both children red  
(flip colors)



# Red-black BST construction demo

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red-black BST

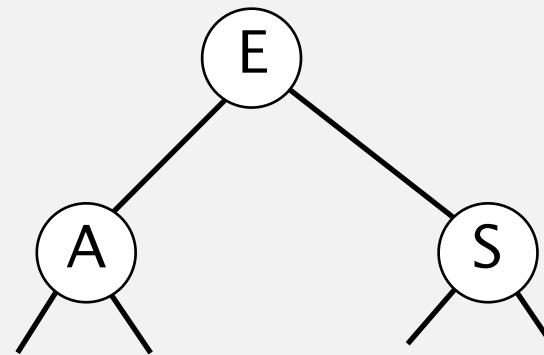




# Red-black BST construction demo

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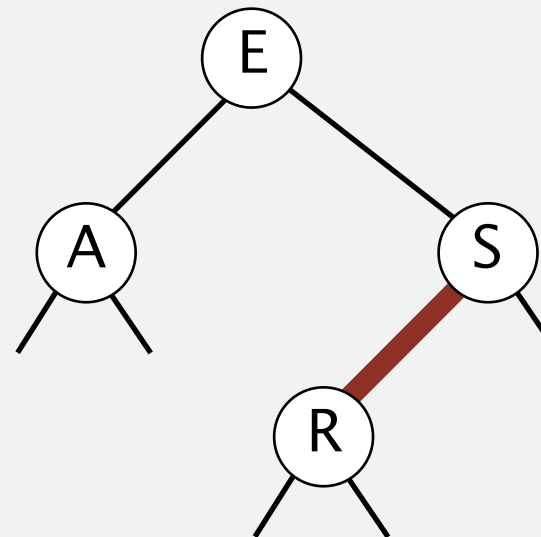
red-black BST



# Red-black BST construction demo

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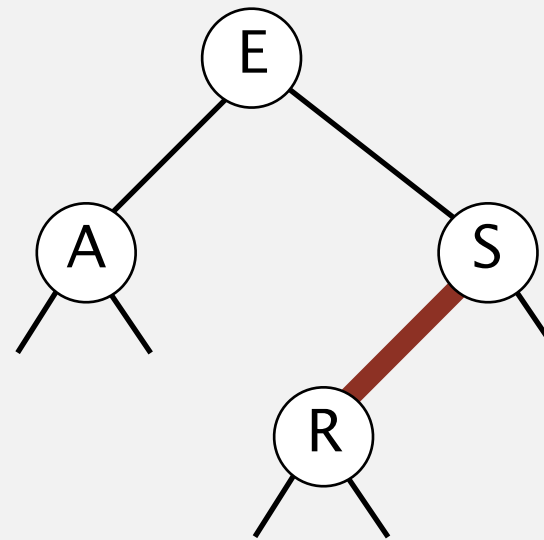
insert R



# Red-black BST construction demo

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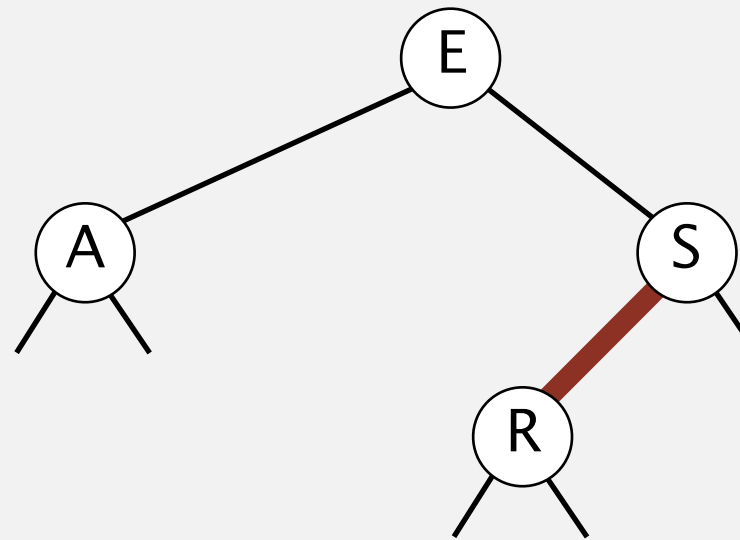
red-black BST



# Red-black BST construction demo

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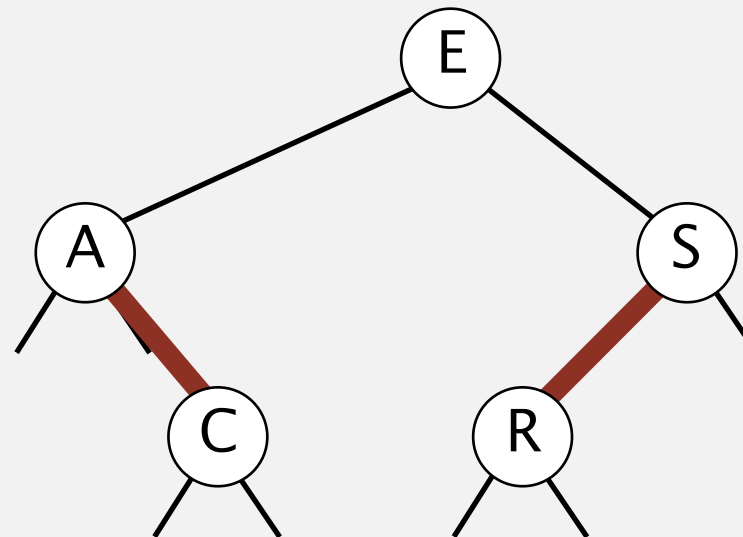
red-black BST



# Red-black BST construction demo

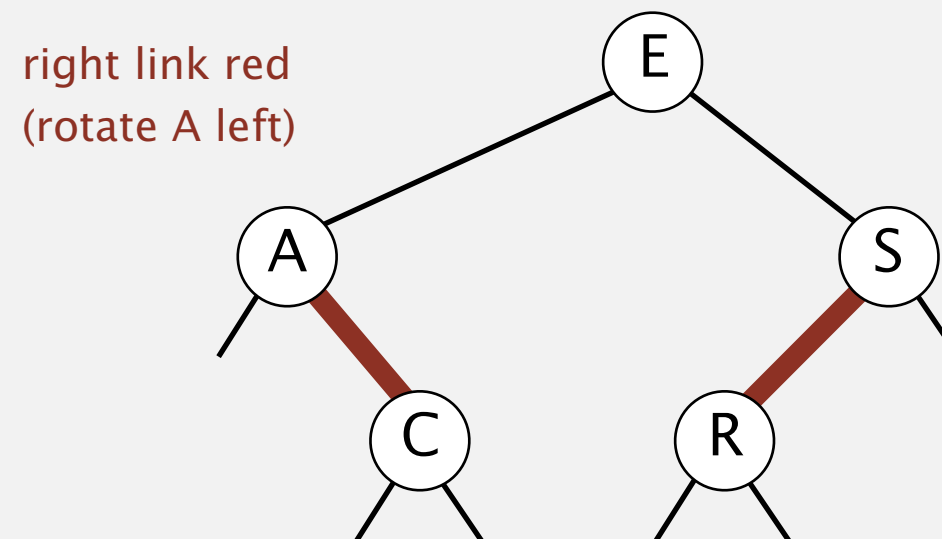
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insert C



# Red-black BST construction demo

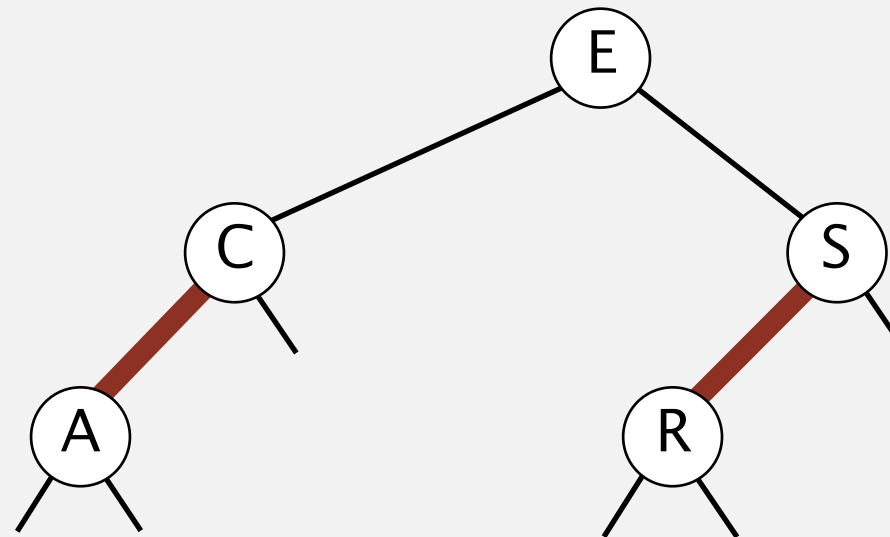
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# Red-black BST construction demo

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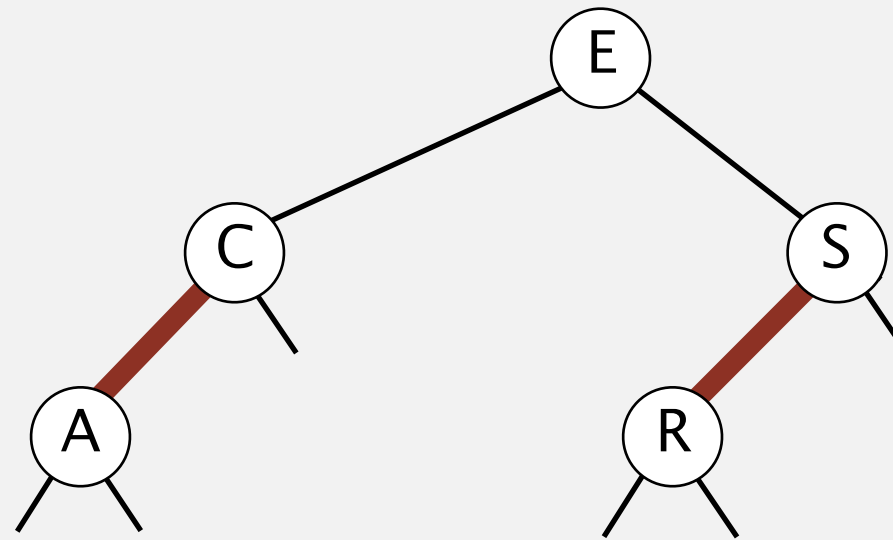
red-black BST



# Red-black BST construction demo

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red-black BST

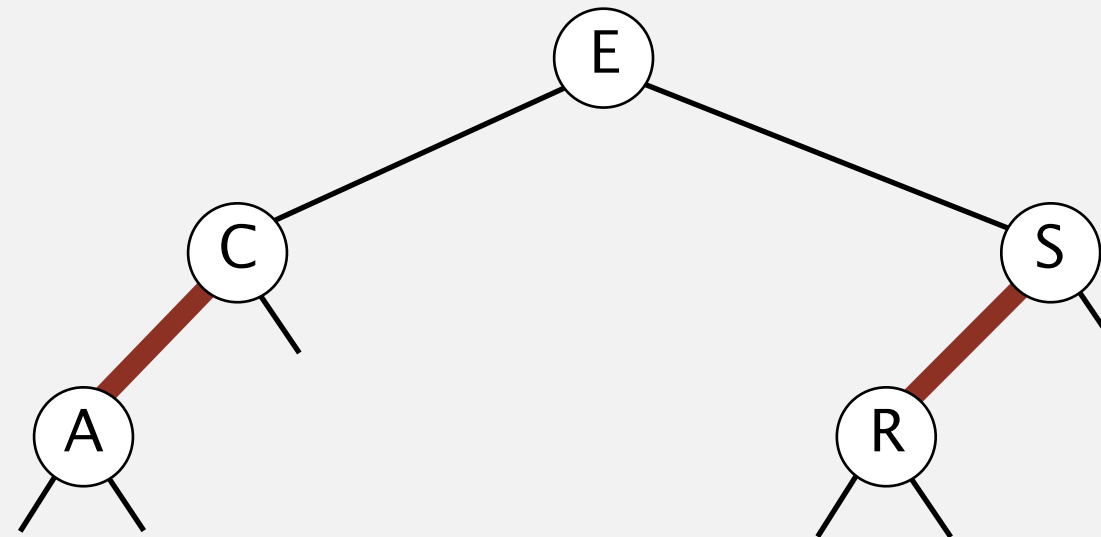




# Red-black BST construction demo

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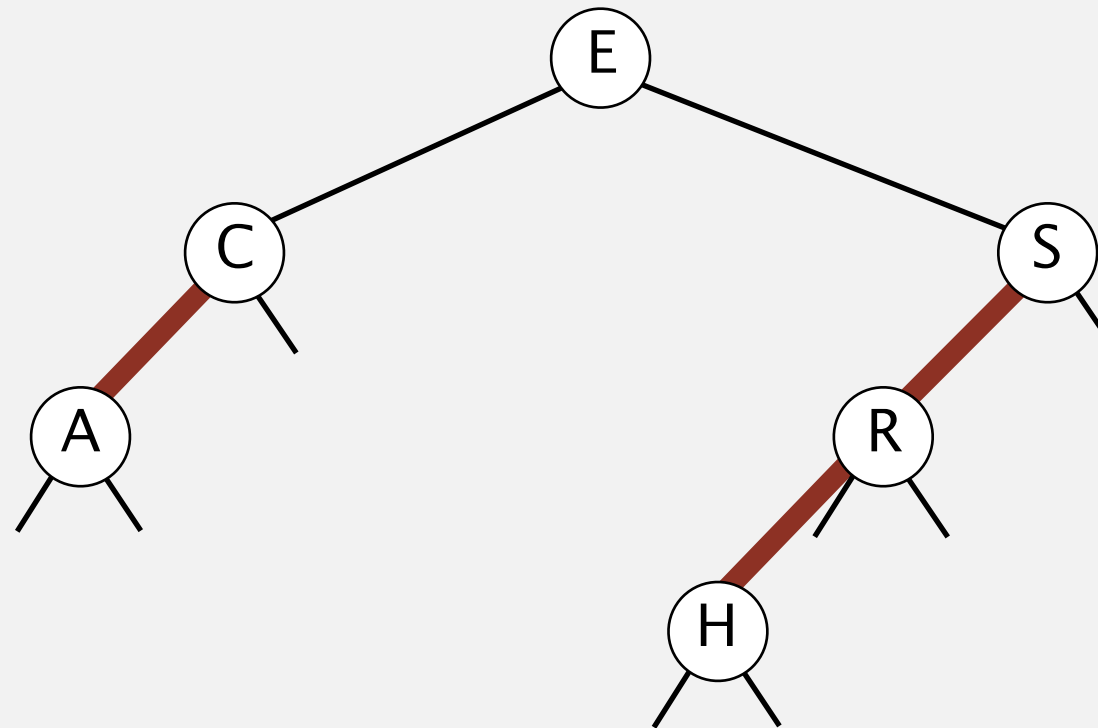
red-black BST



# Red-black BST construction demo

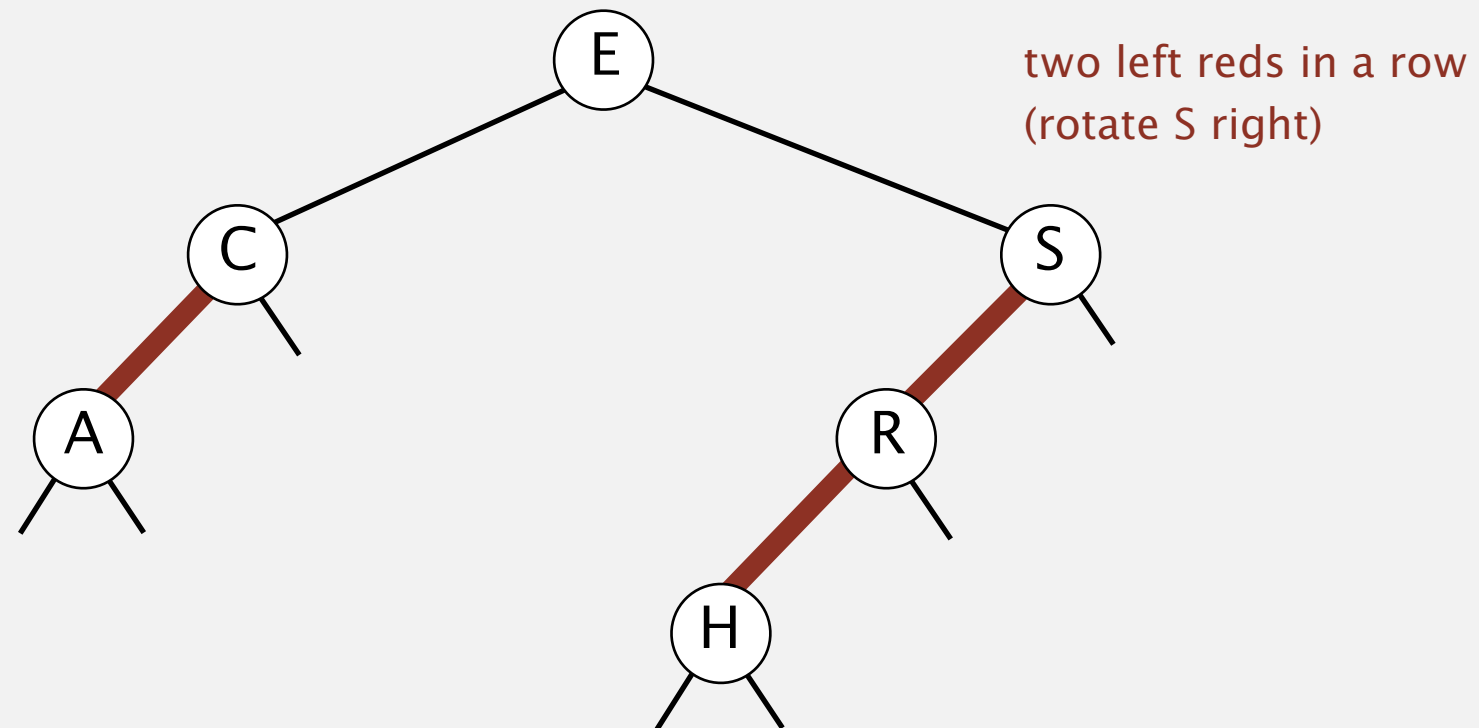
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insert H



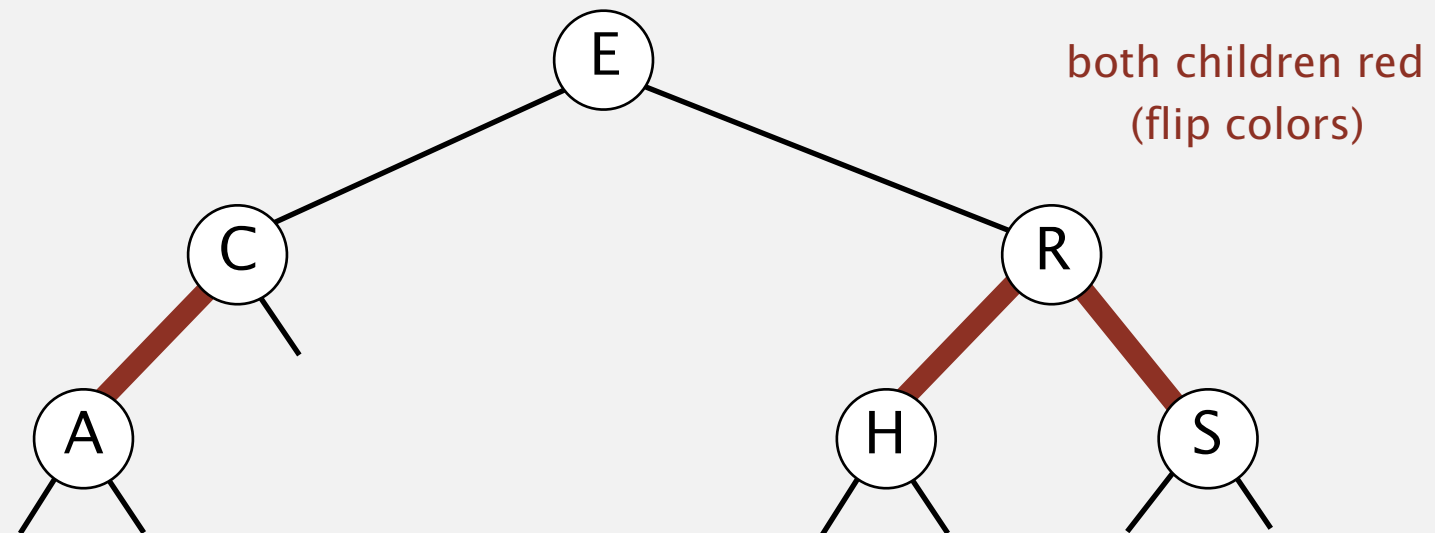
# Red-black BST construction demo

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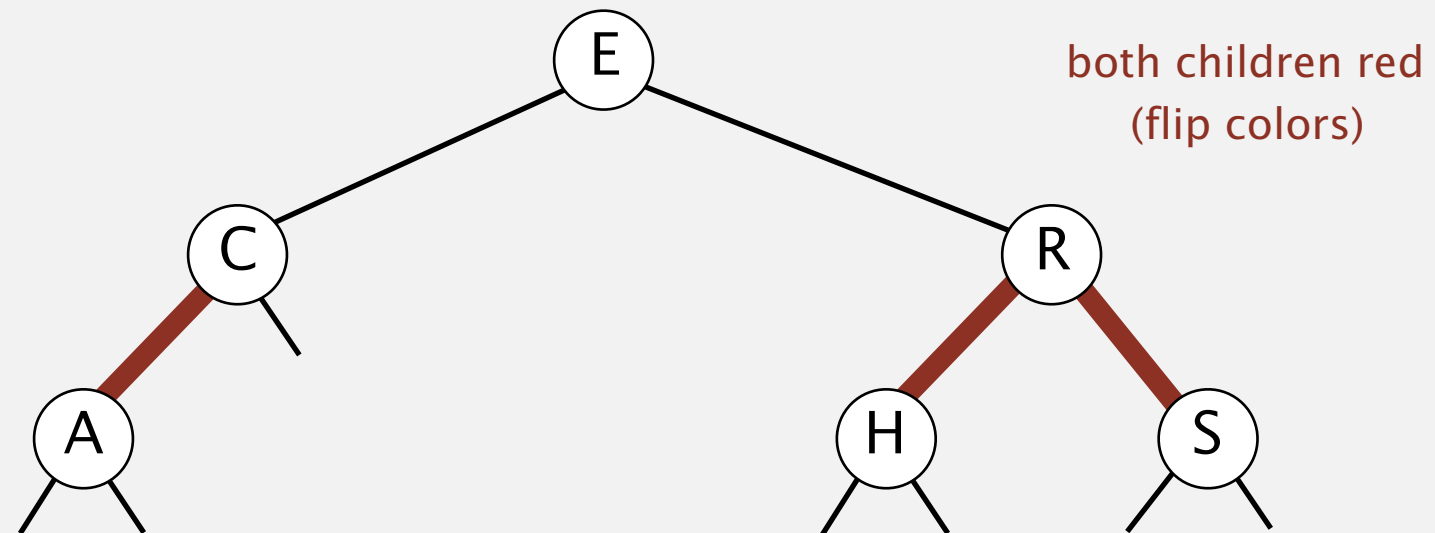
# Red-black BST construction demo

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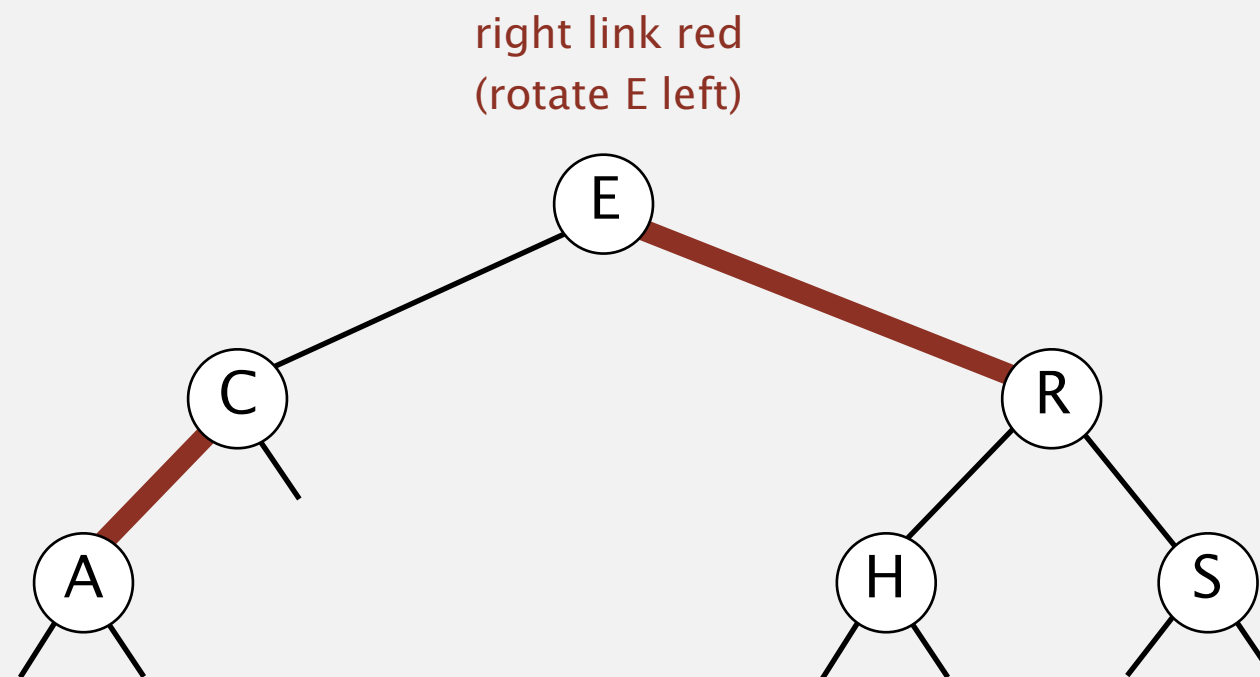
# Red-black BST construction demo

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# Red-black BST construction demo

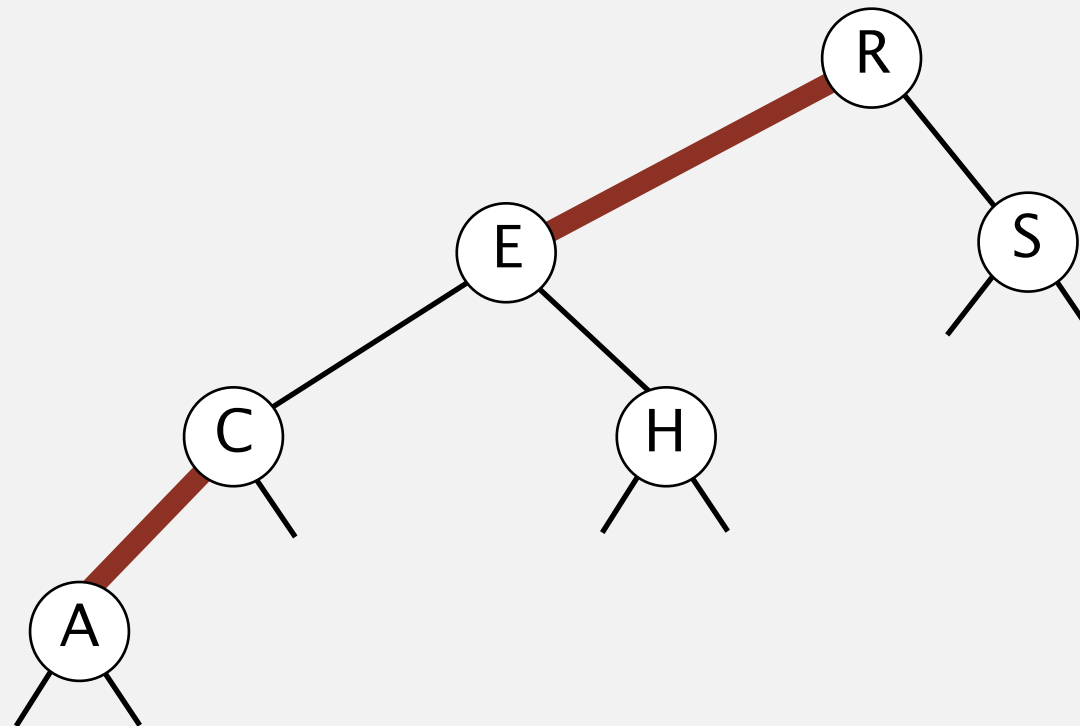
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# Red-black BST construction demo

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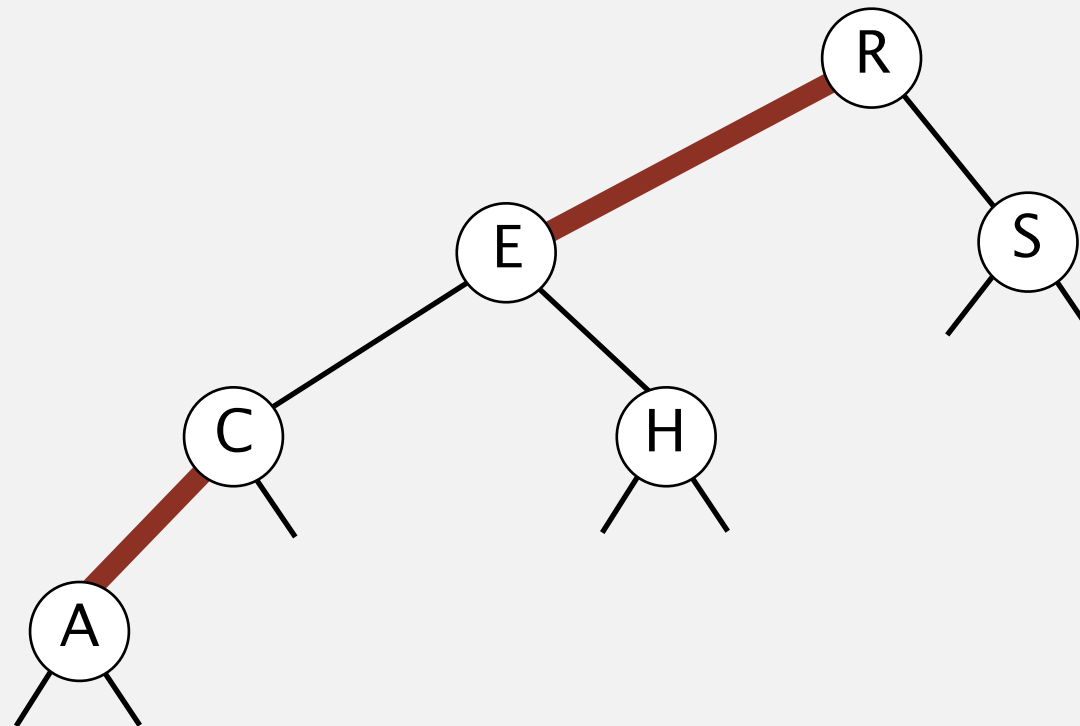
red-black BST



# Red-black BST construction demo

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red-black BST

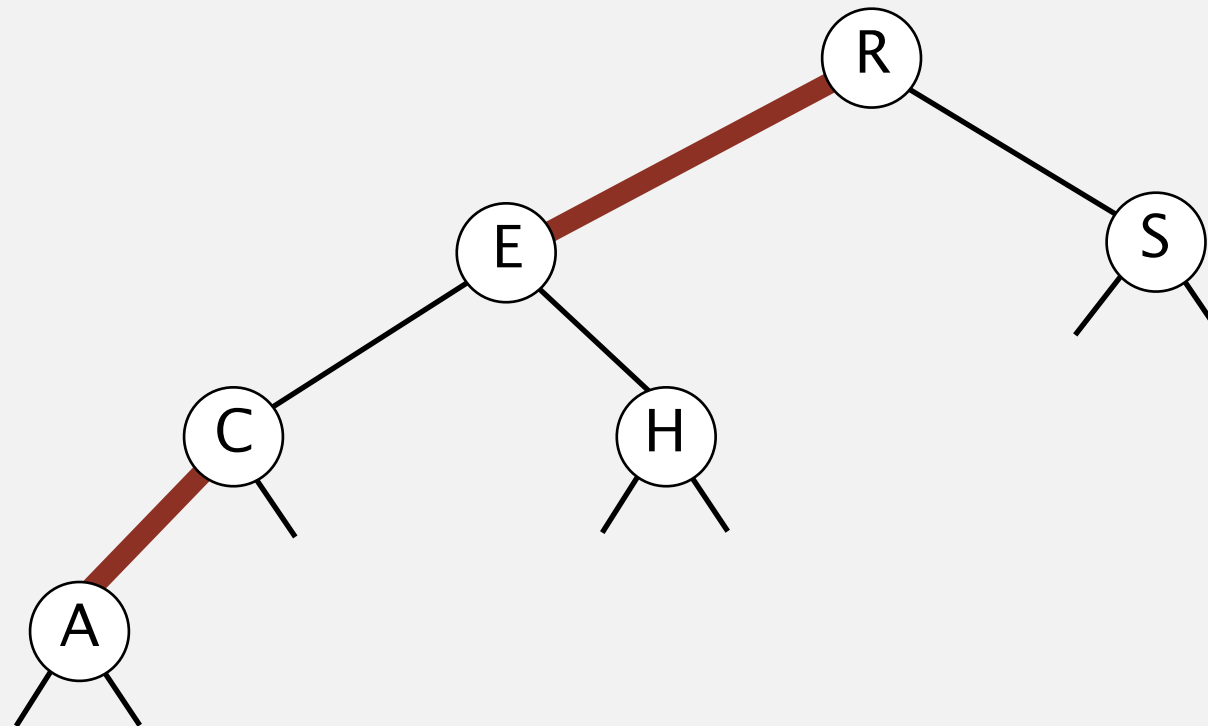




# Red-black BST construction demo

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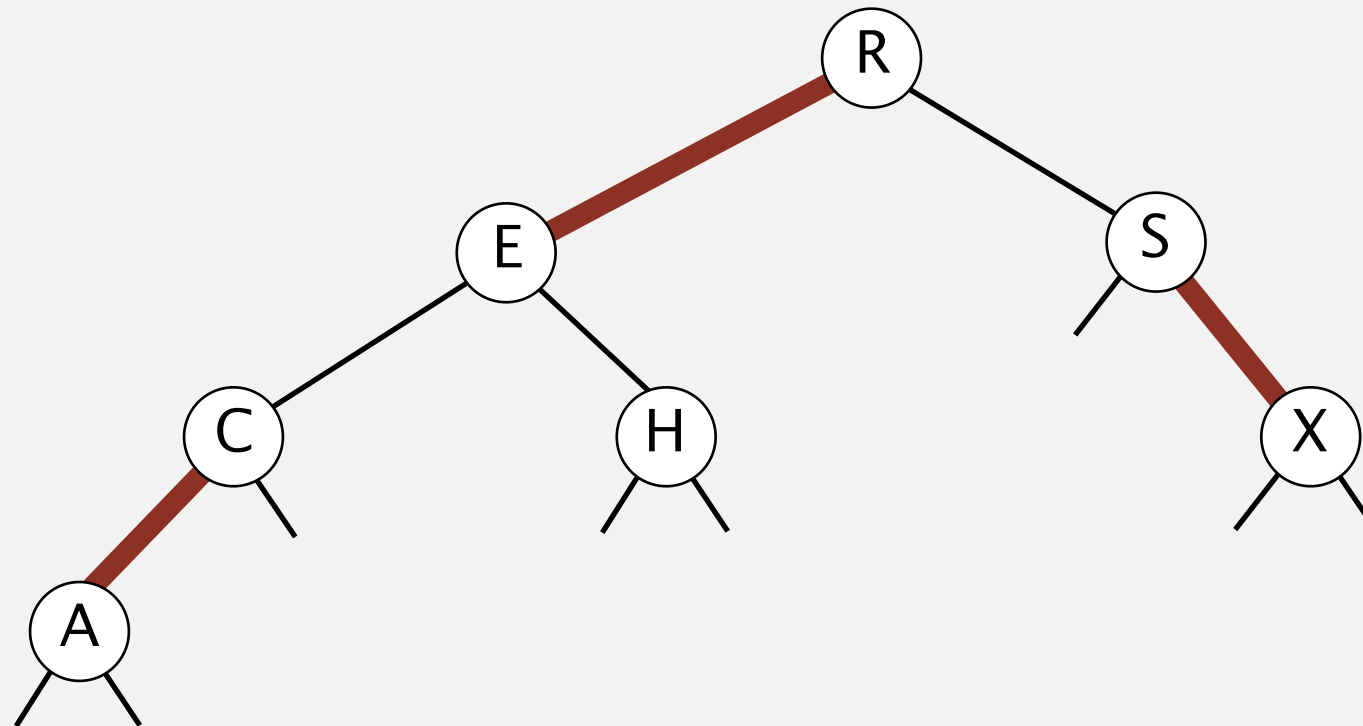
red-black BST



# Red-black BST construction demo

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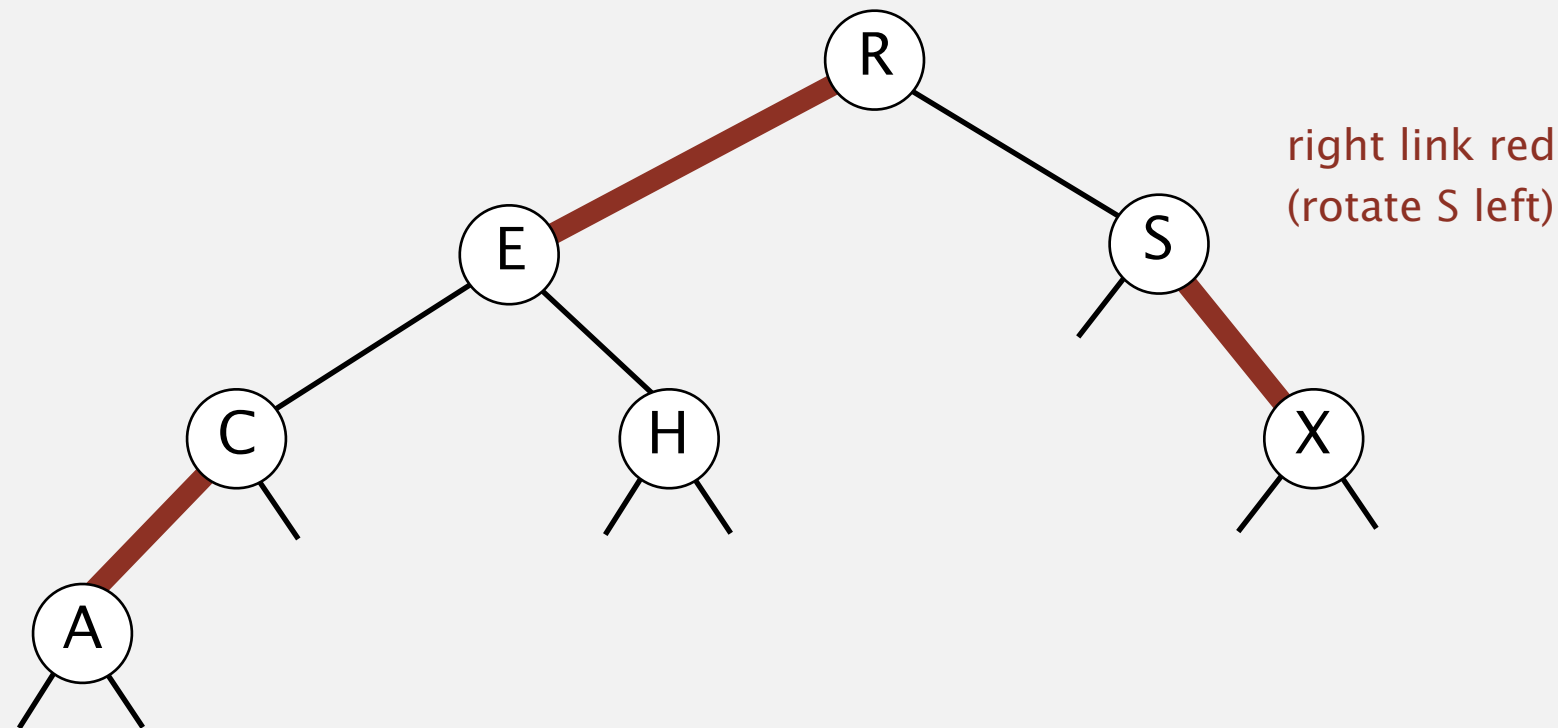
insert X



# Red-black BST construction demo

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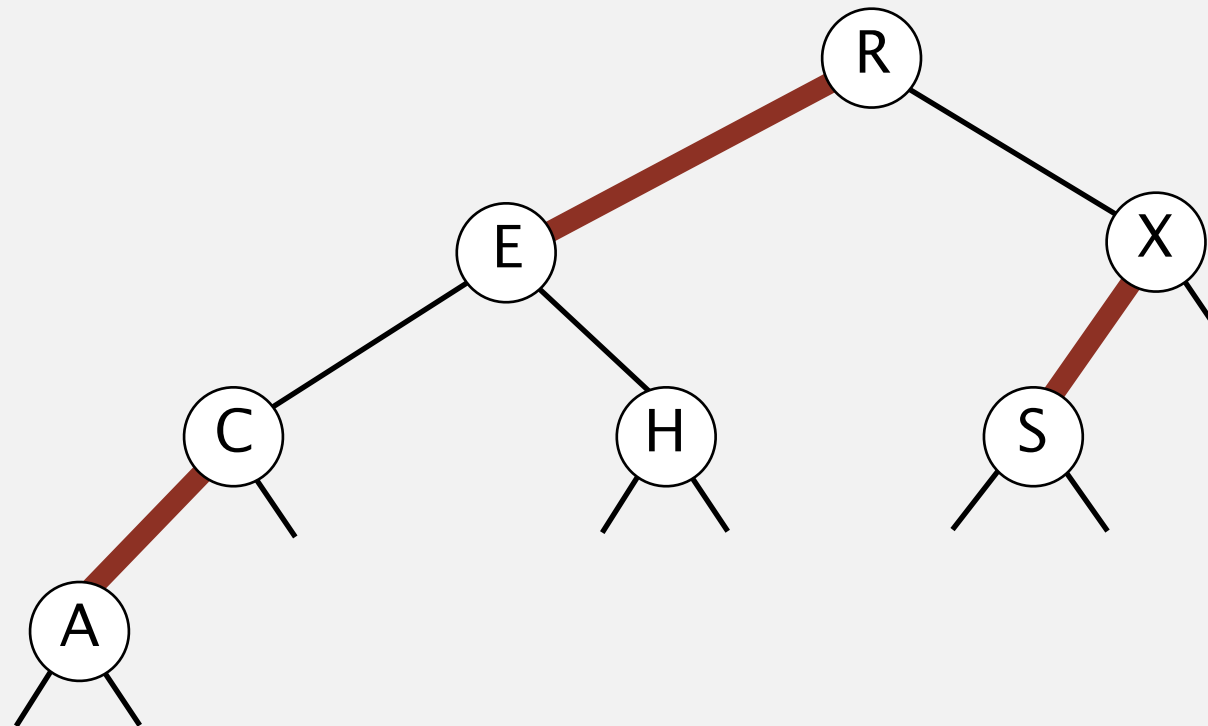
insert X



# Red-black BST construction demo

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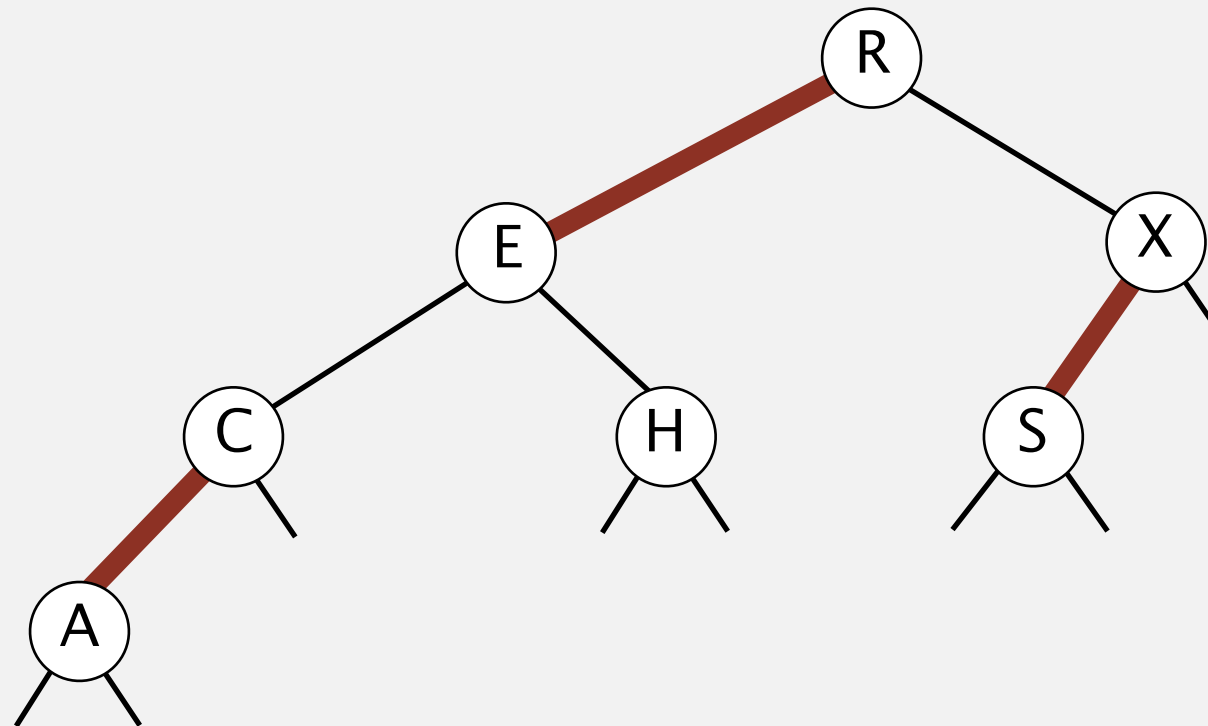
red-black BST



# Red-black BST construction demo

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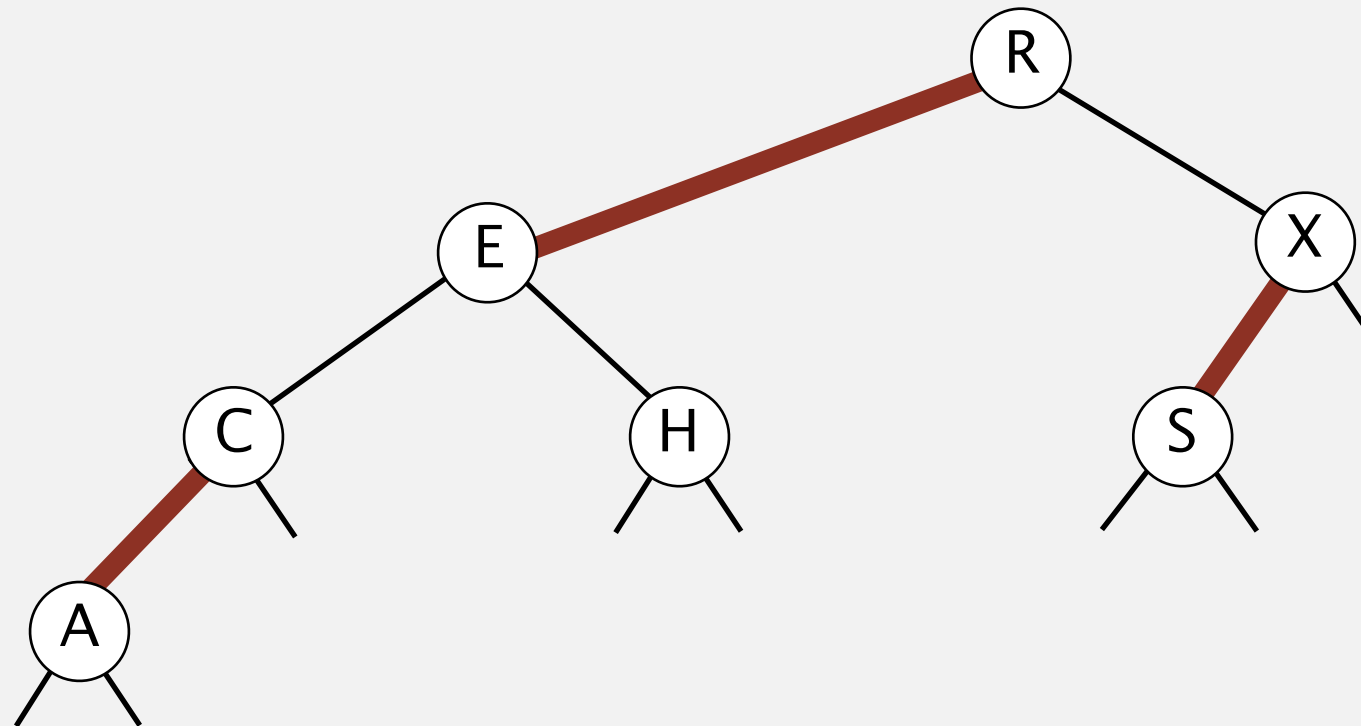
red-black BST



# Red-black BST construction demo

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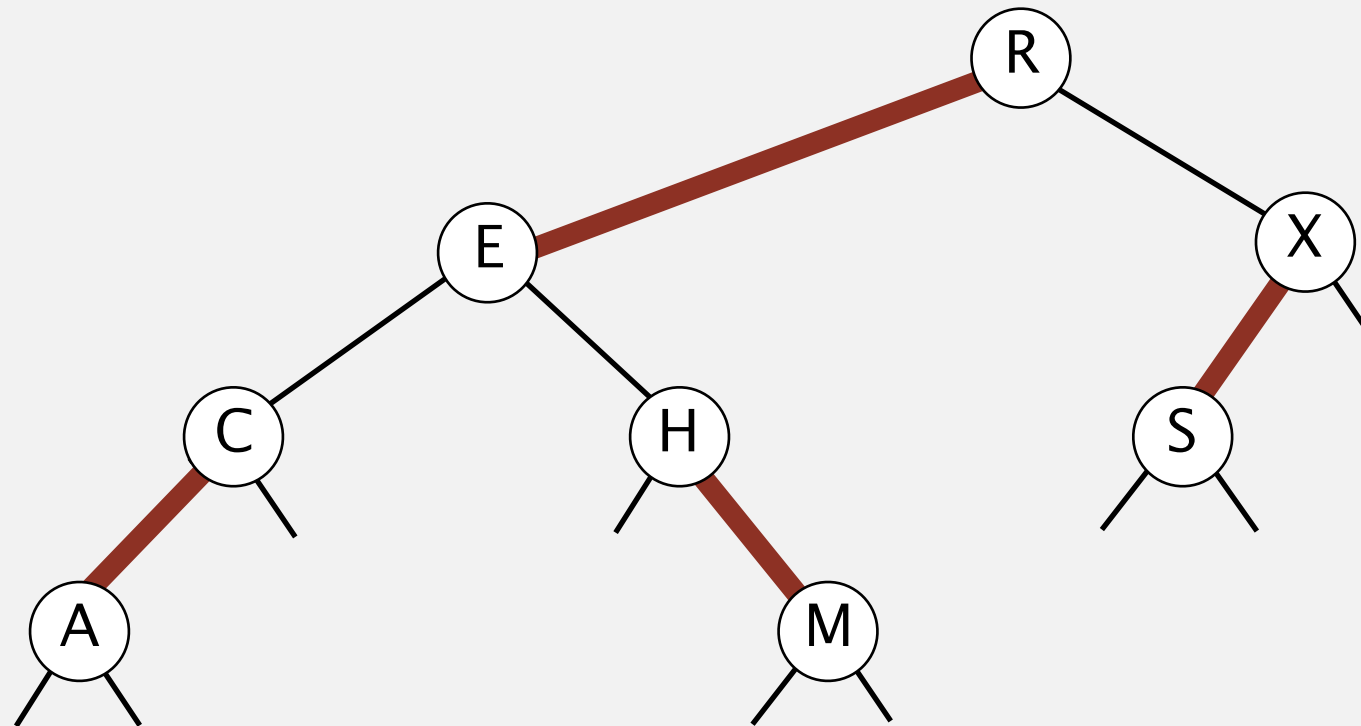
red-black BST



# Red-black BST construction demo

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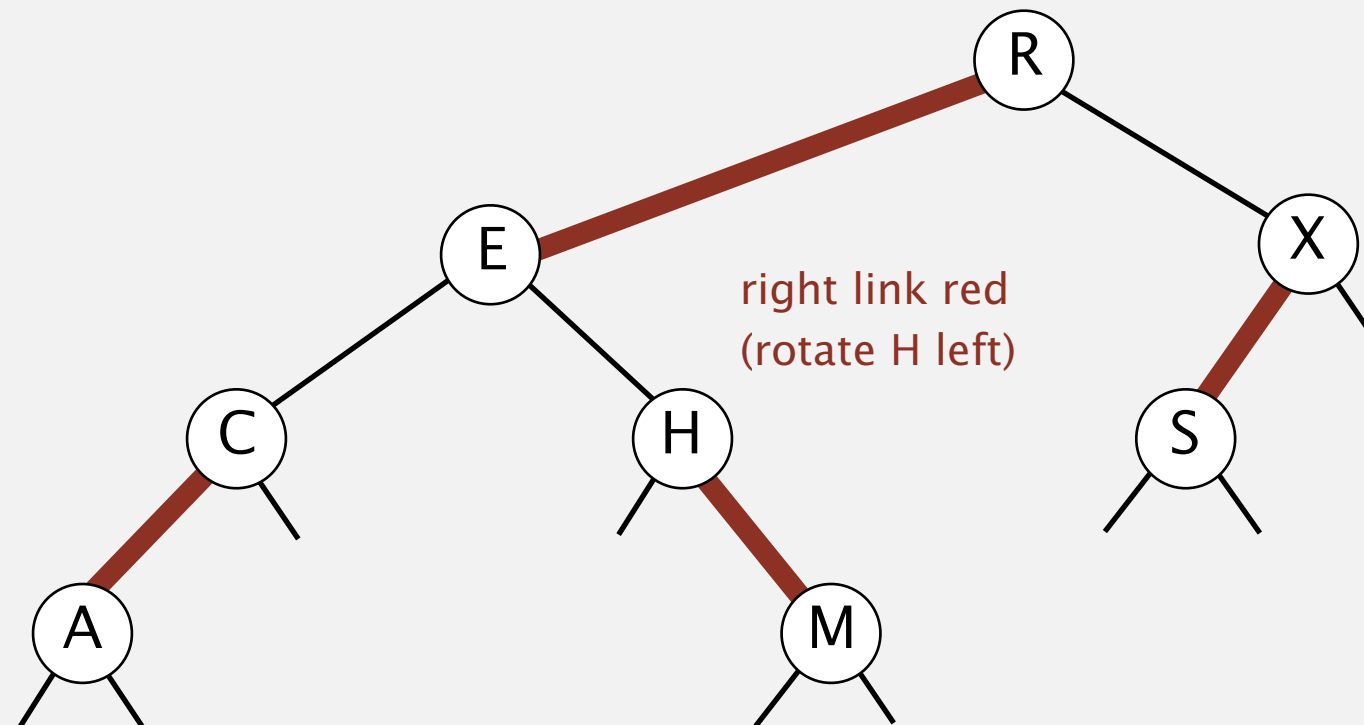
insert M



# Red-black BST construction demo

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insert M

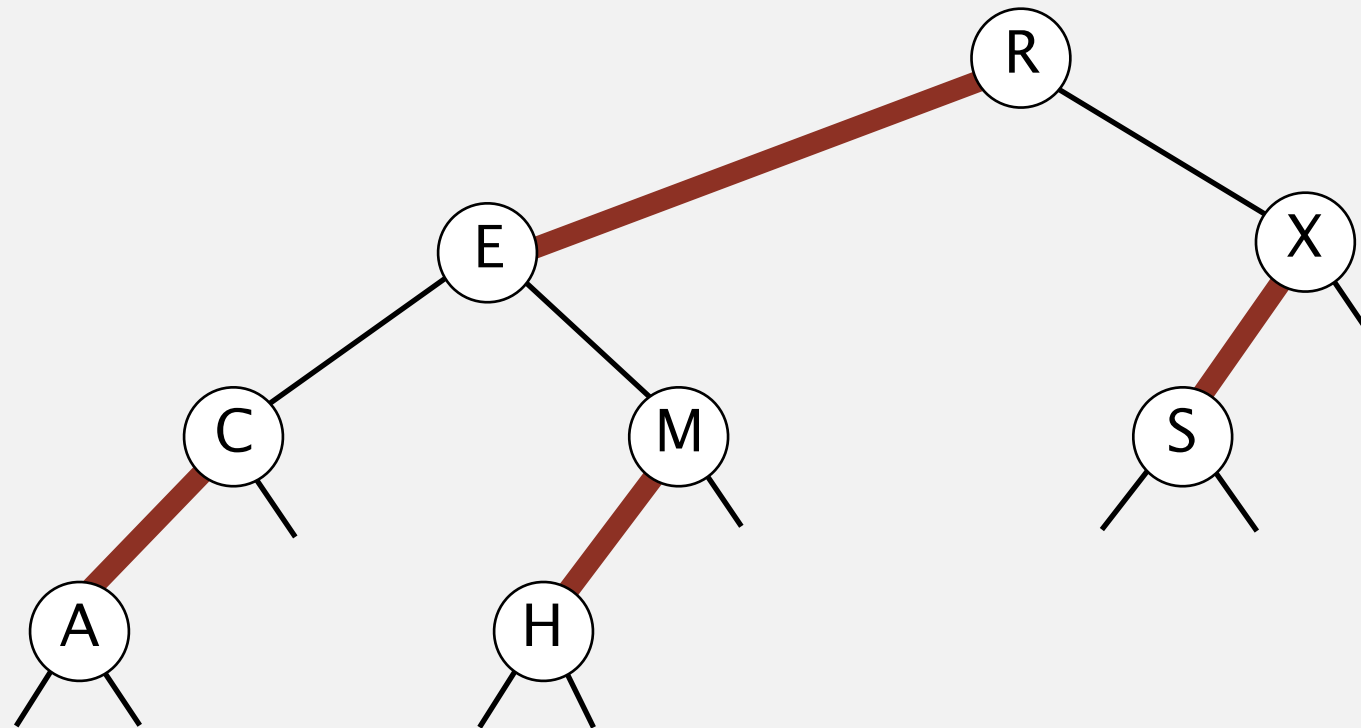




# Red-black BST construction demo

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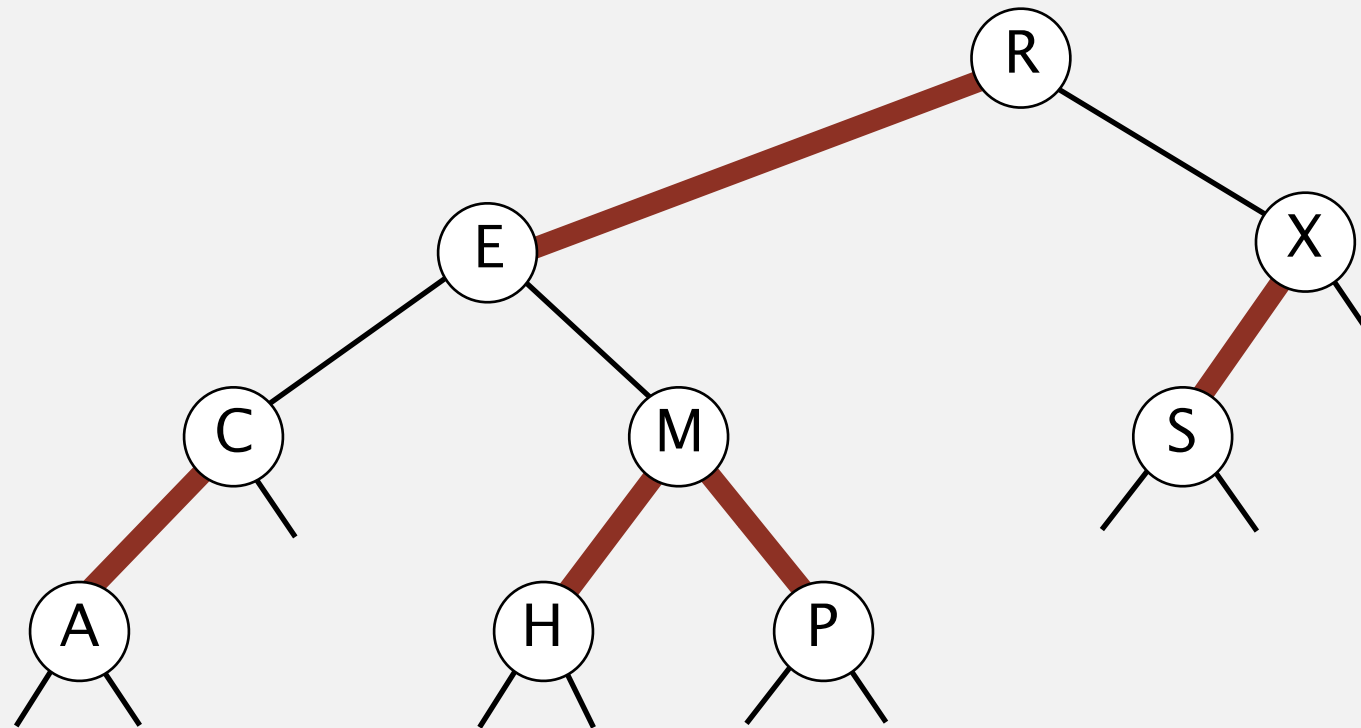
red-black BST



# Red-black BST construction demo

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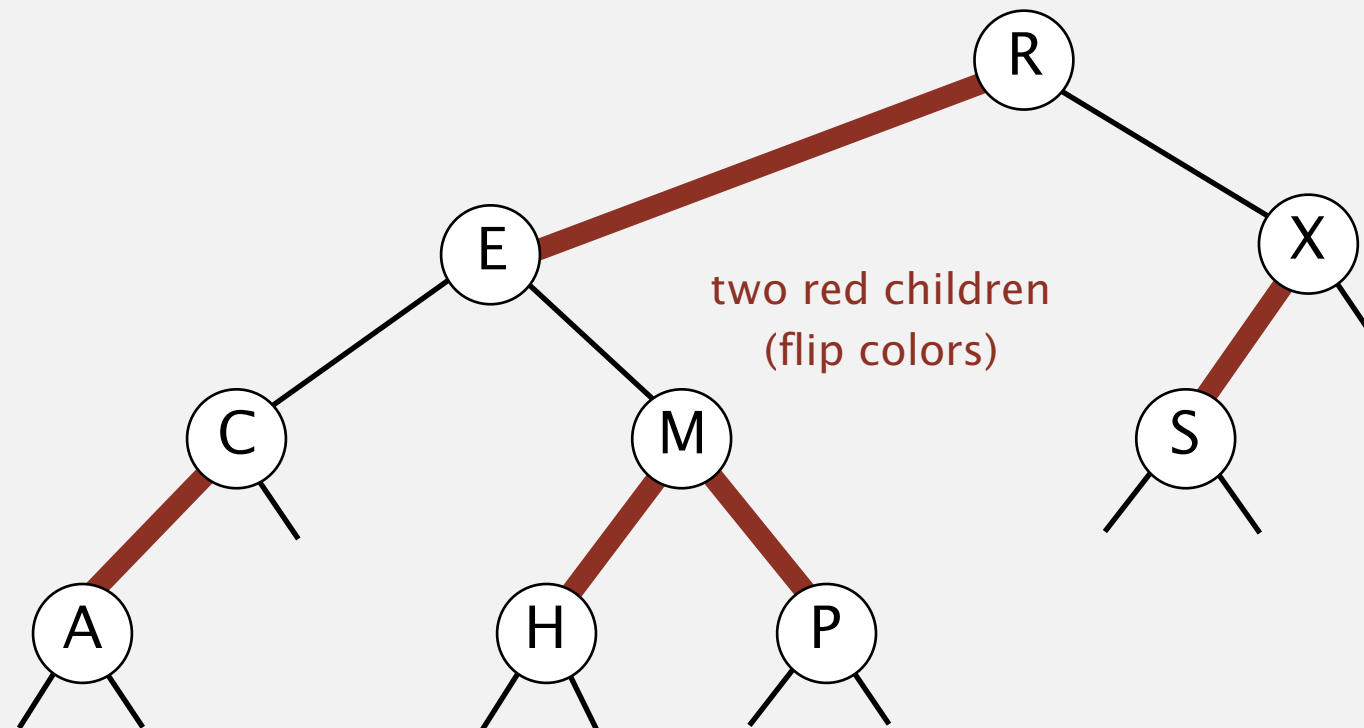
insert P



# Red-black BST construction demo

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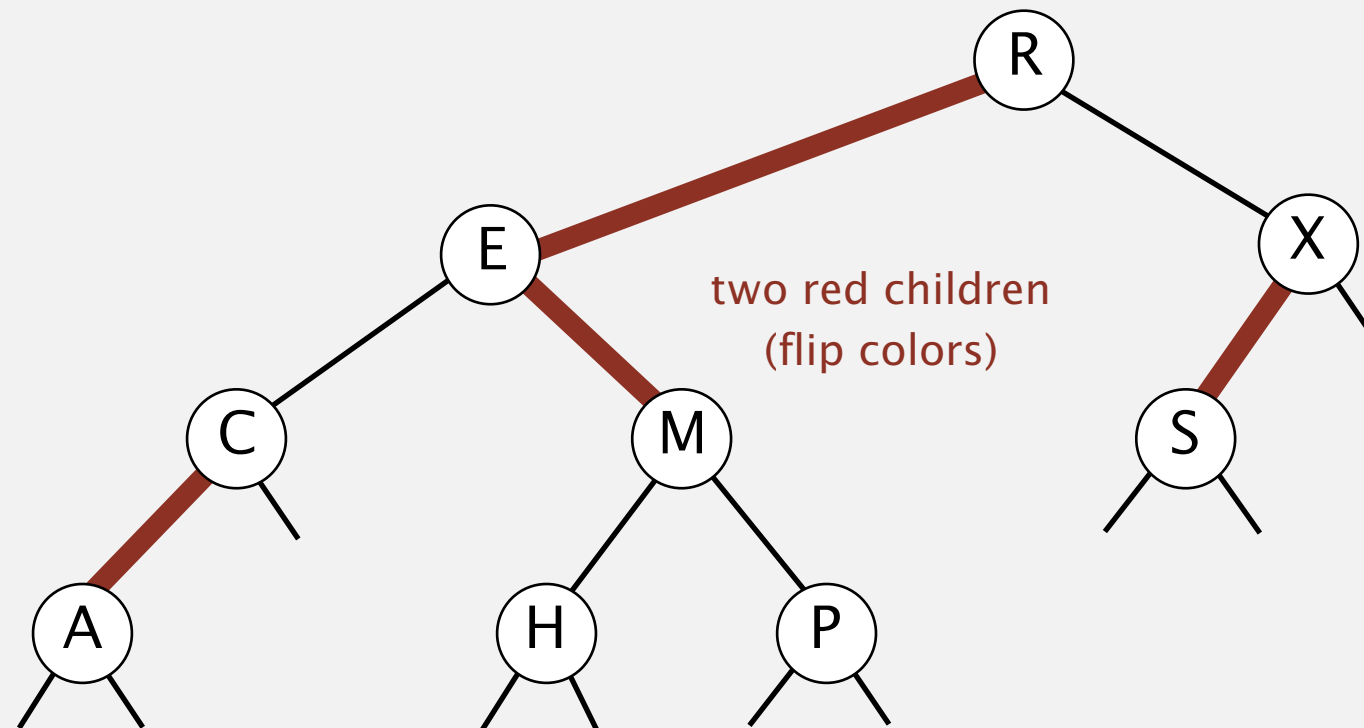
insert P



# Red-black BST construction demo

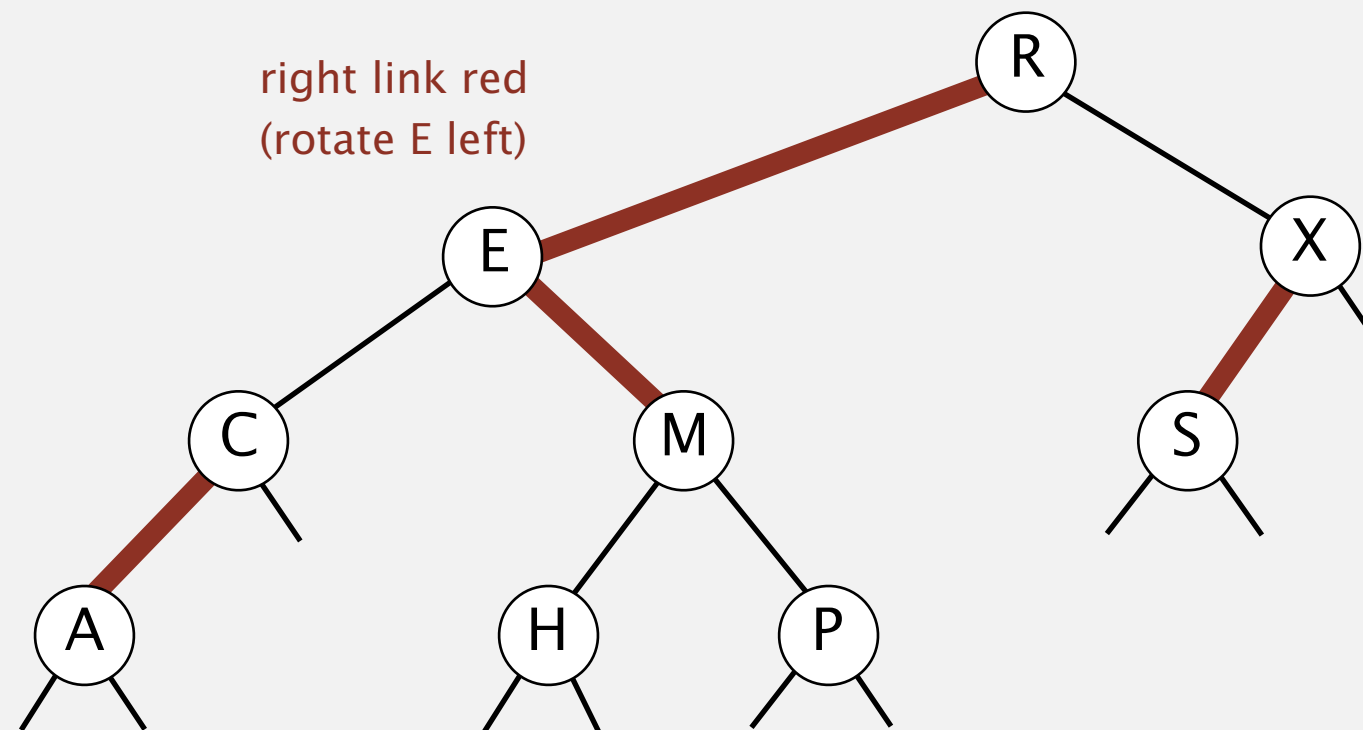
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insert P



# Red-black BST construction demo

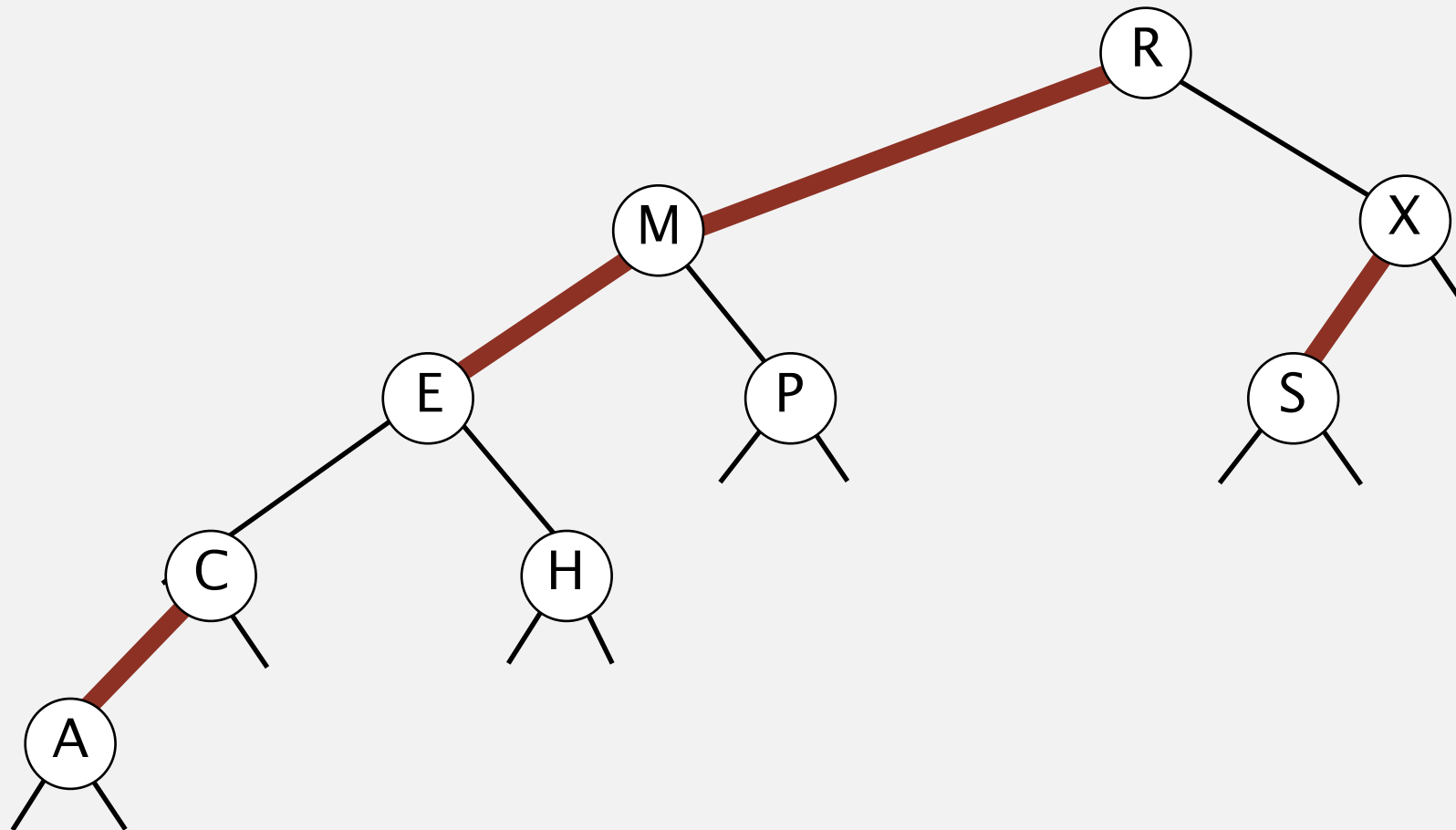
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# Red-black BST construction demo

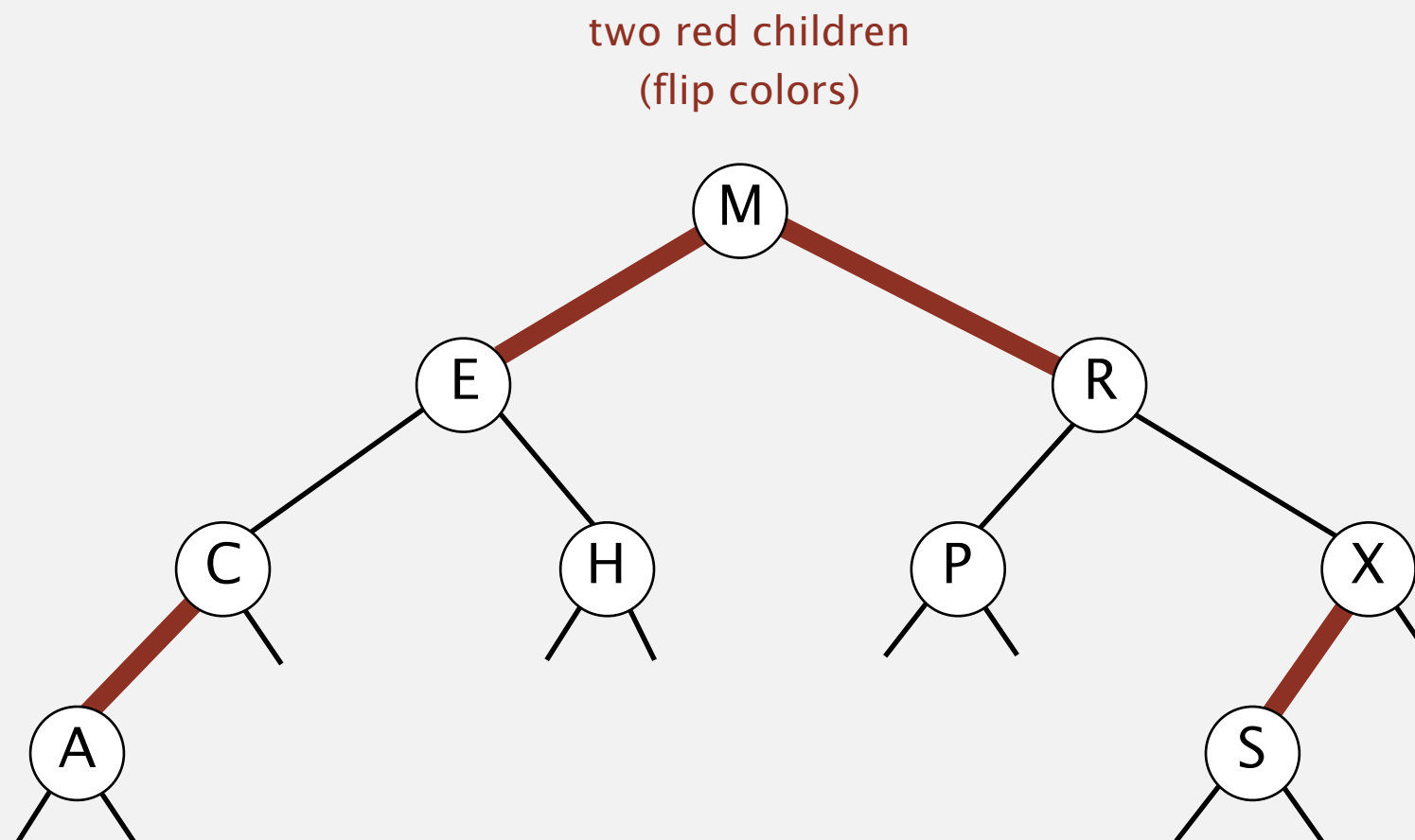
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two left reds in a row  
(rotate R right)



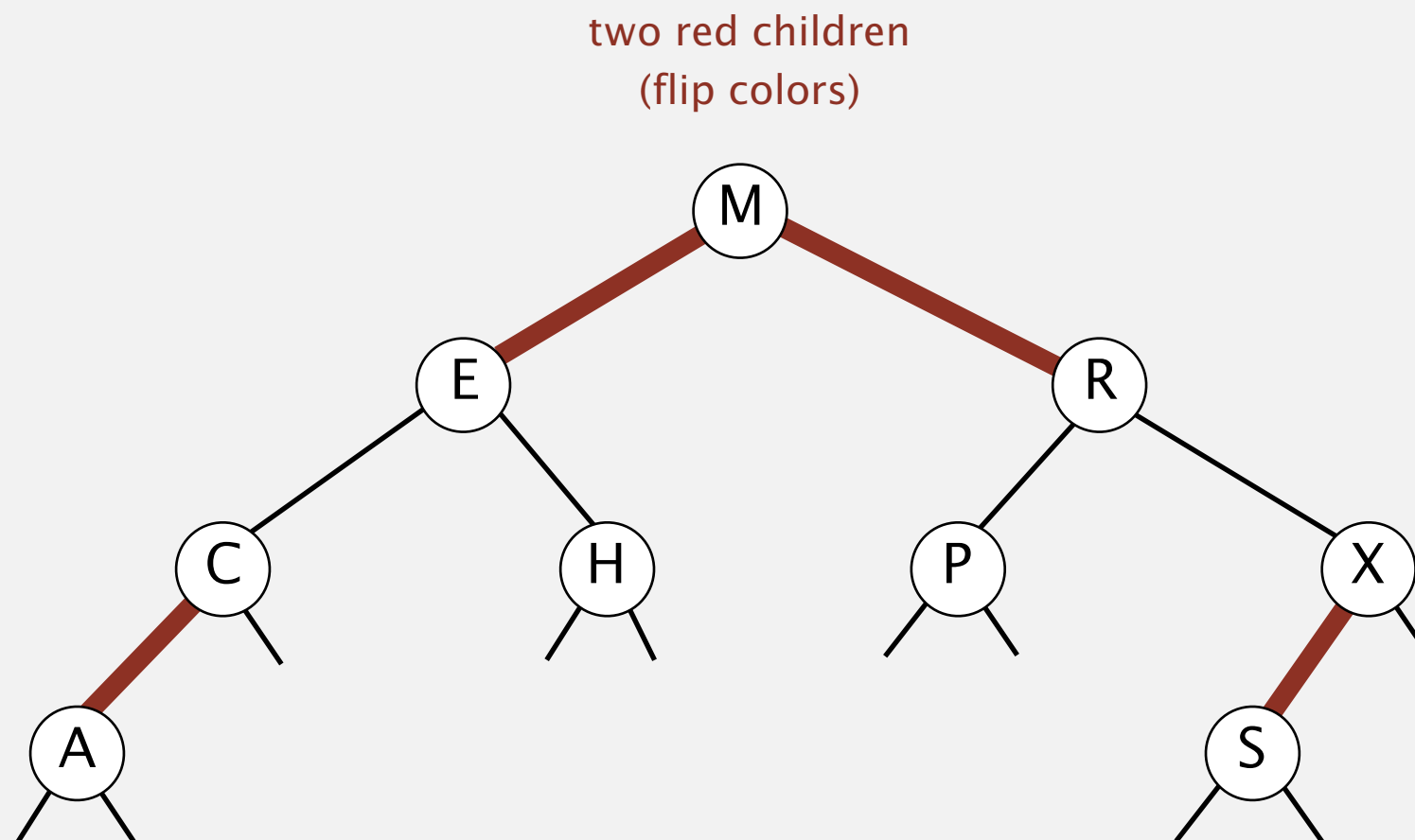
# Red-black BST construction demo

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# Red-black BST construction demo

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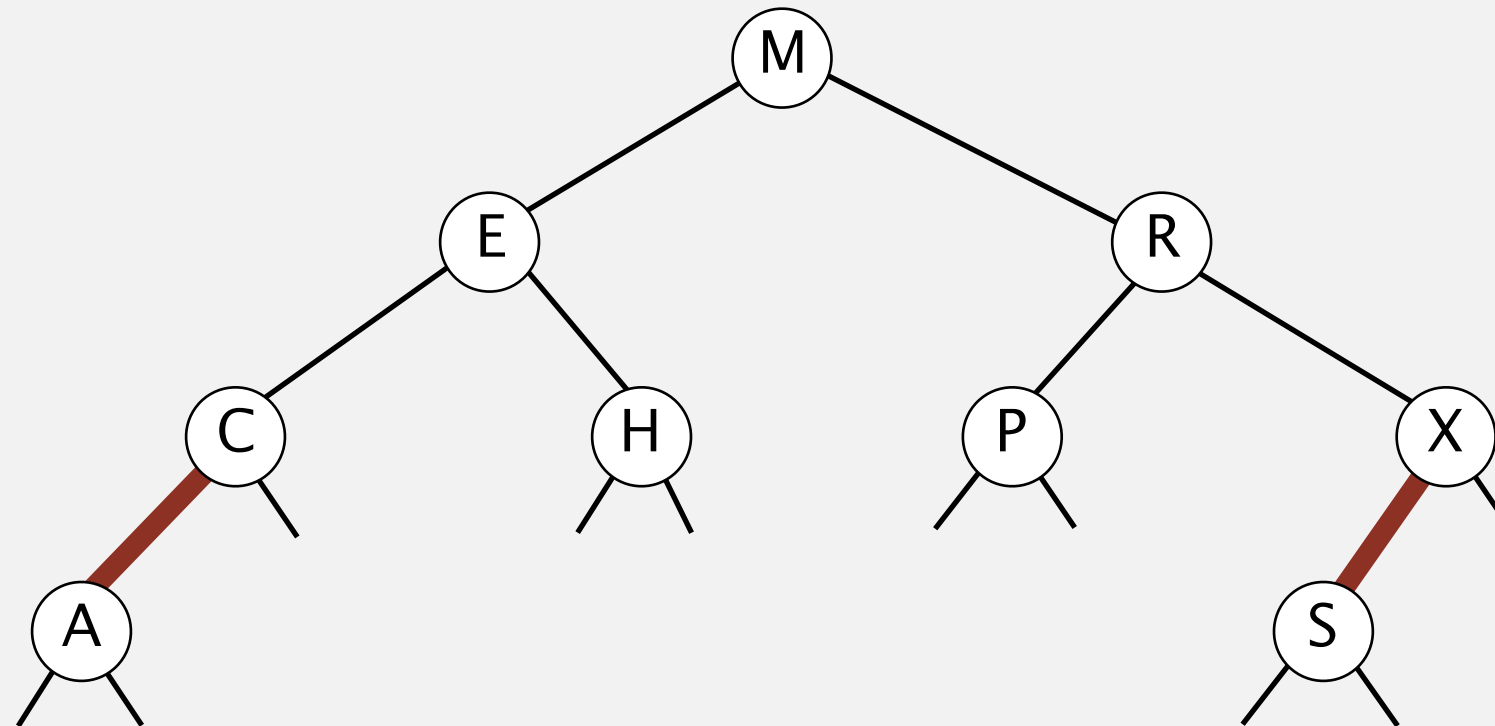




# Red-black BST construction demo

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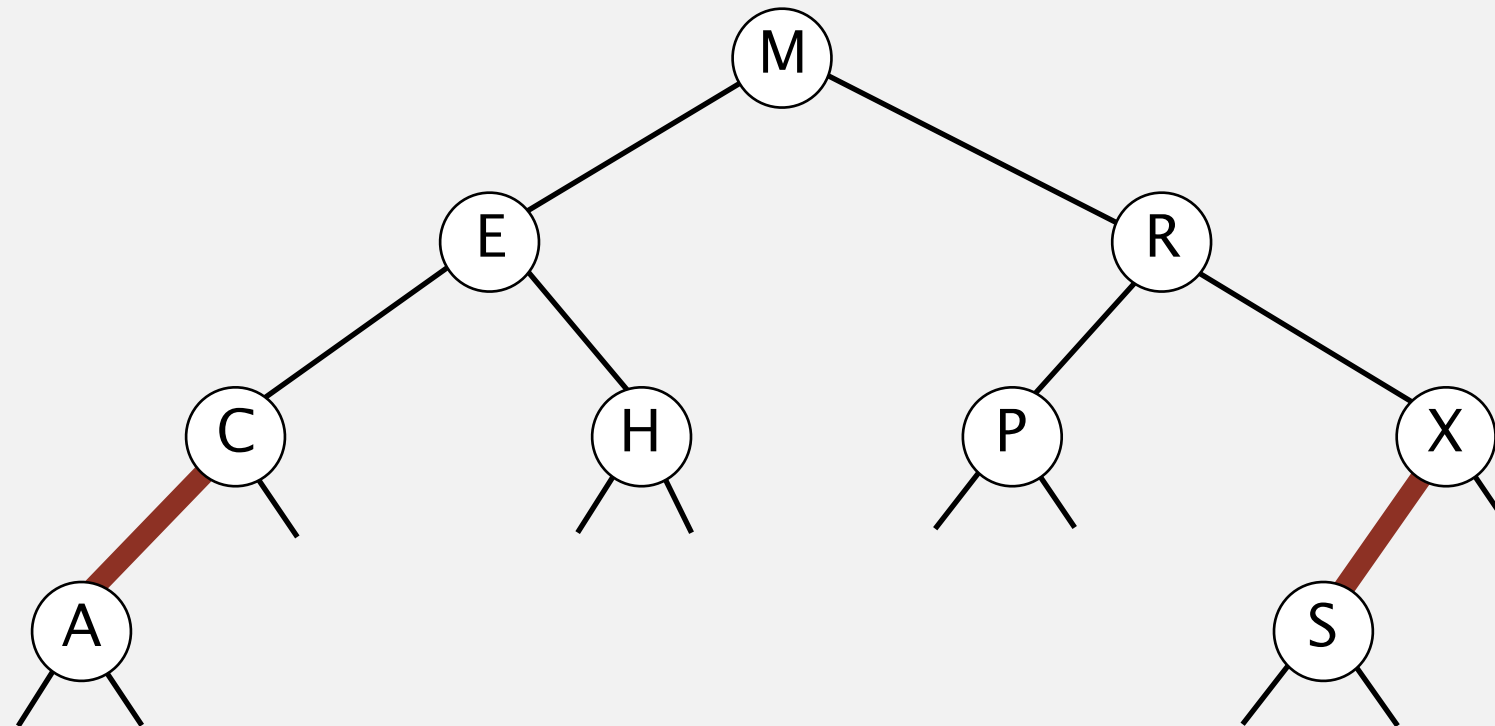
red-black BST



# Red-black BST construction demo

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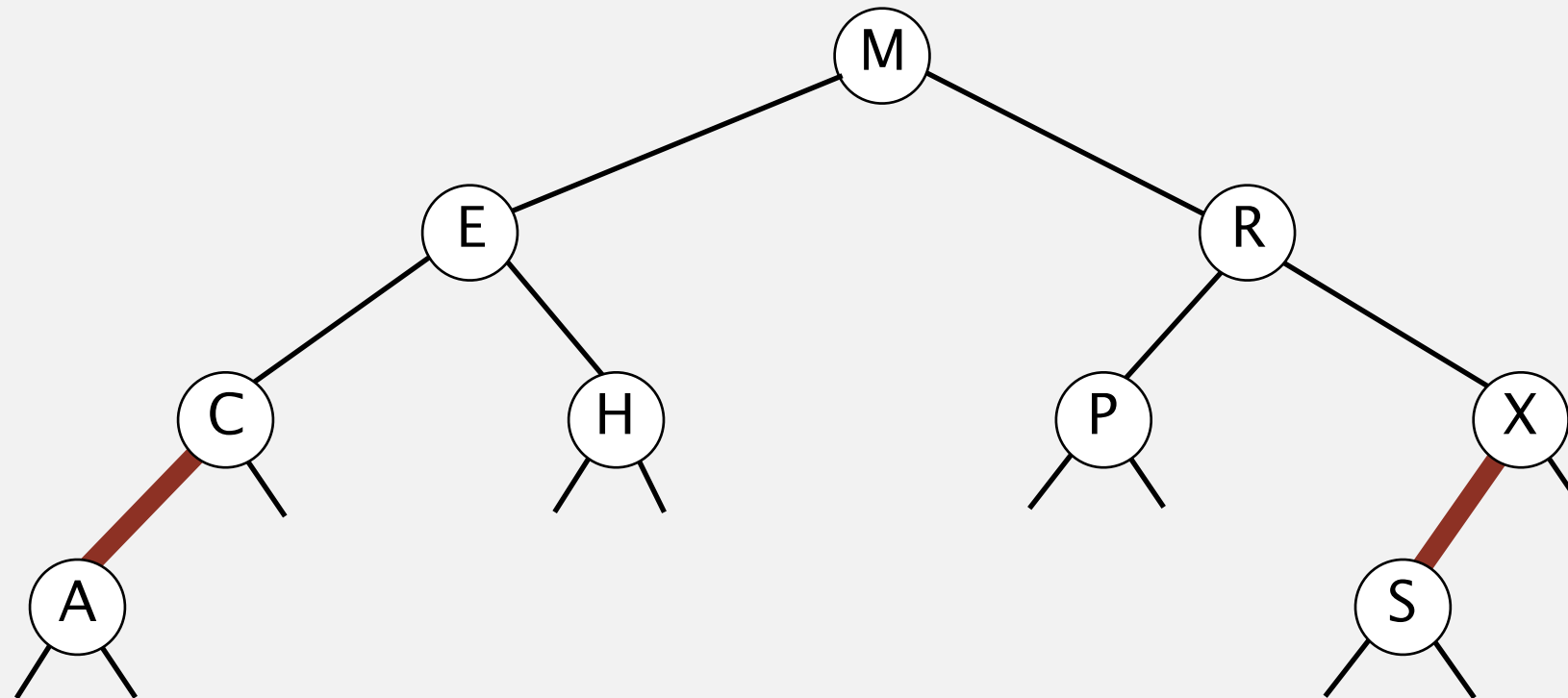
red-black BST



# Red-black BST construction demo

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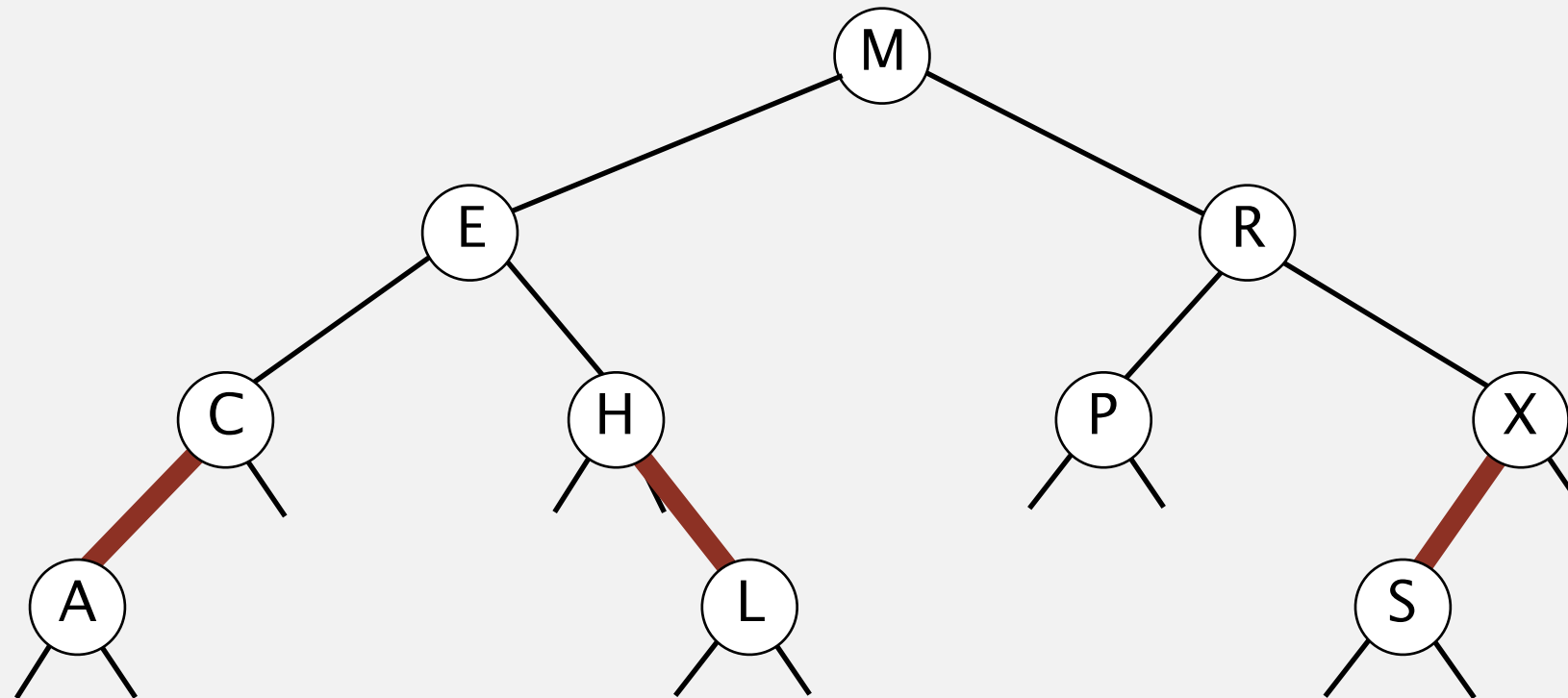
red-black BST



# Red-black BST construction demo

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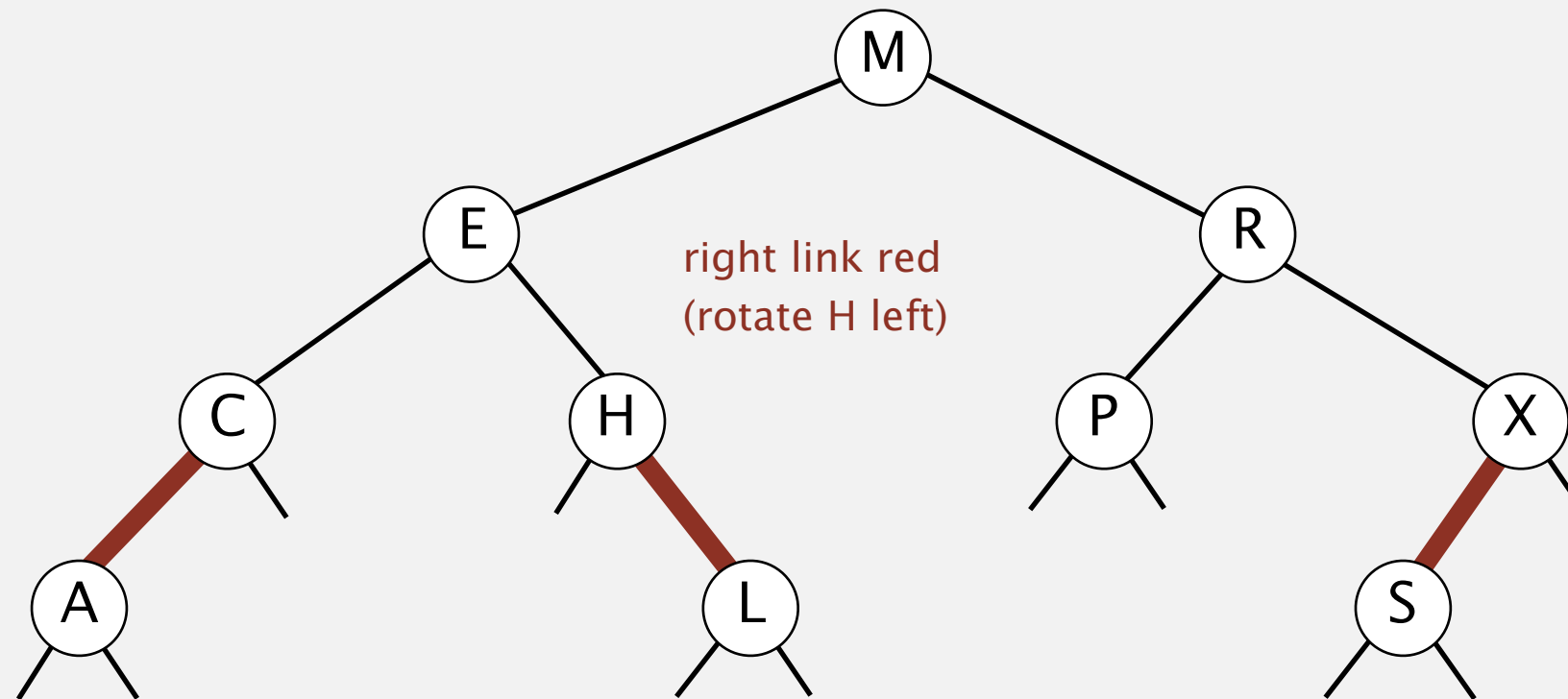
insert L



# Red-black BST construction demo

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insert L



# Red-black BST construction demo

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red-black BST

