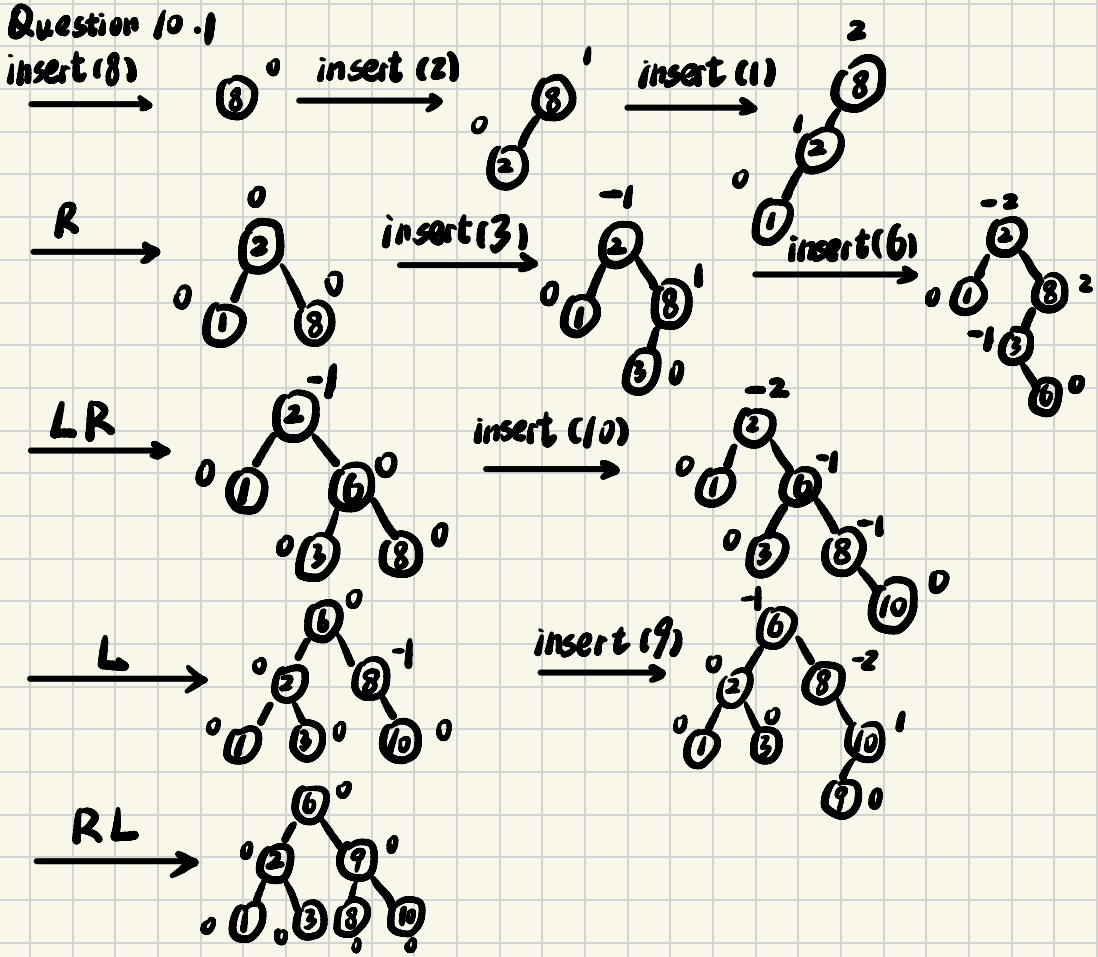
Exercise sheet 10

Question 10.1



Question 10.2

Let $A(h)$ be the minimum number of nodes that an AVL tree of height h must contain.

$A(0) = 1$ $A(1) = 2$ and $A(h) = 1 + A(h-1) + A(h-2)$

$\Rightarrow$ $A(2) = 4$ $A(3) = 7$ $A(4) = 12$ $A(5) = 20$ $A(6) = 33$

$A(7) = 54$ $A(8) = 88$ $A(9) = 143$ $A(10) = 232$

$\Rightarrow$ minimum number : 232