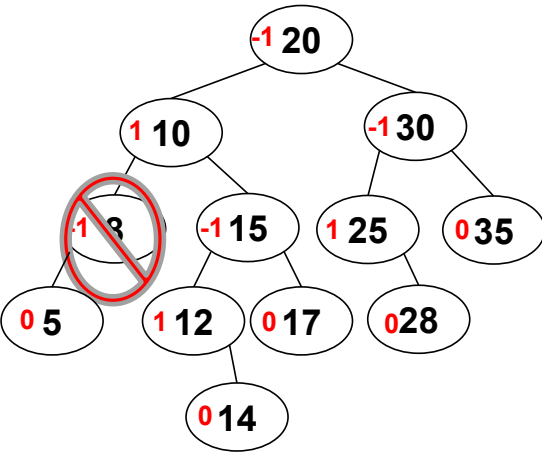


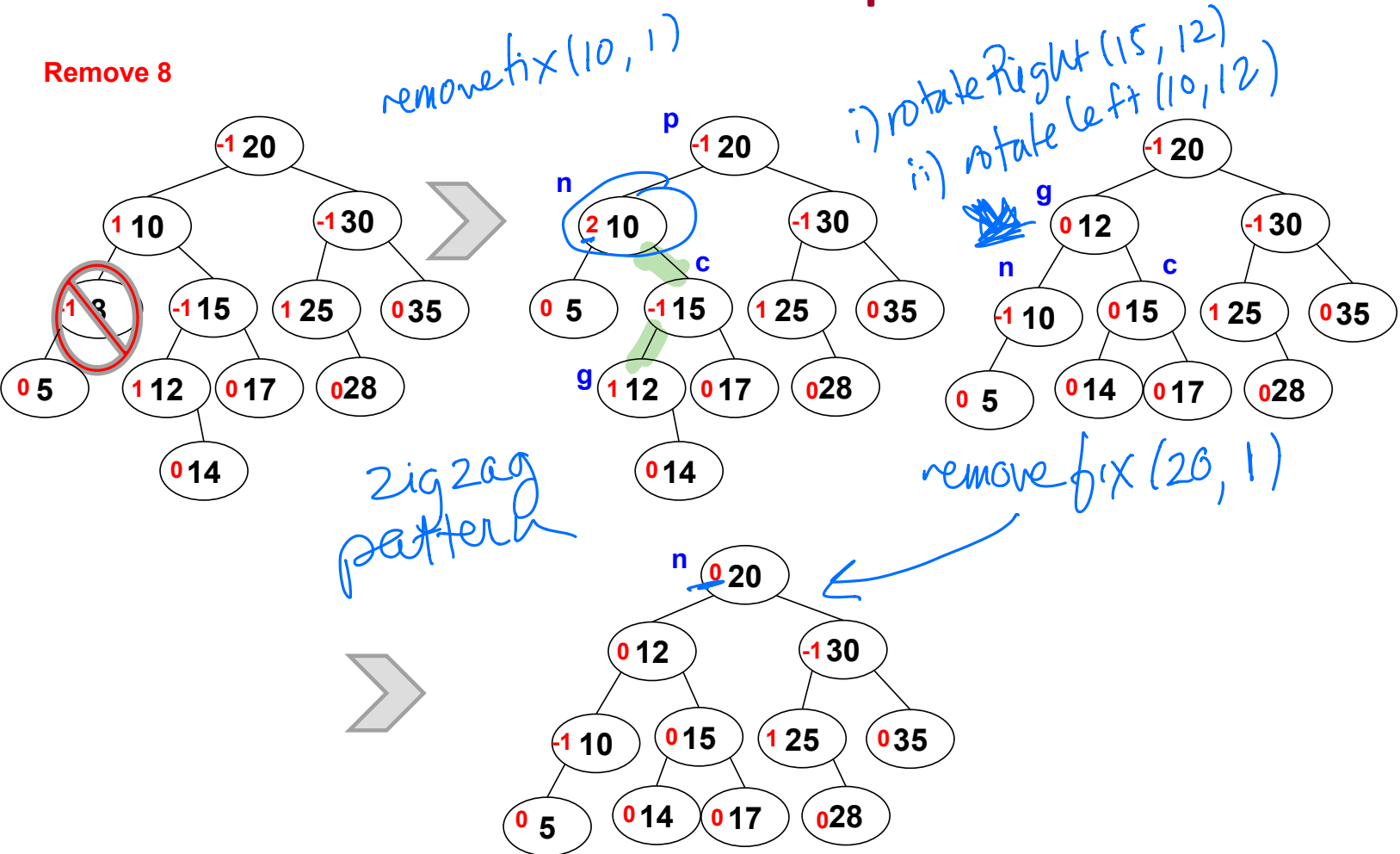
Remove Example 1

Remove 8



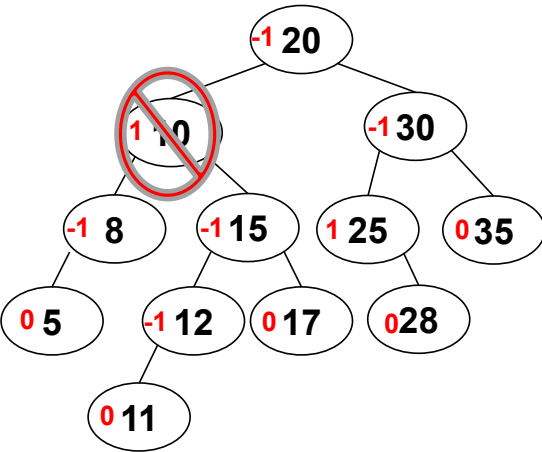
Remove Example 1

Remove 8



Remove Example 2

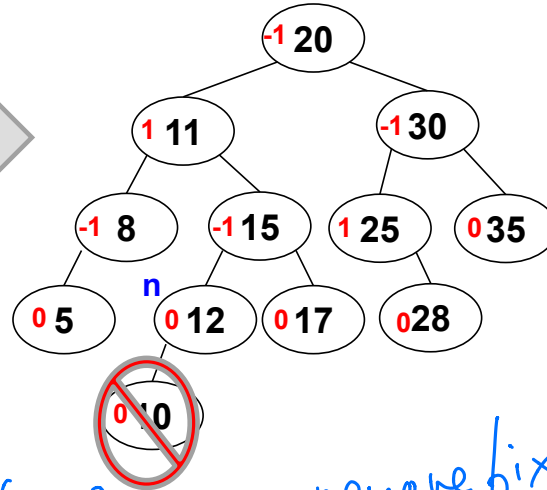
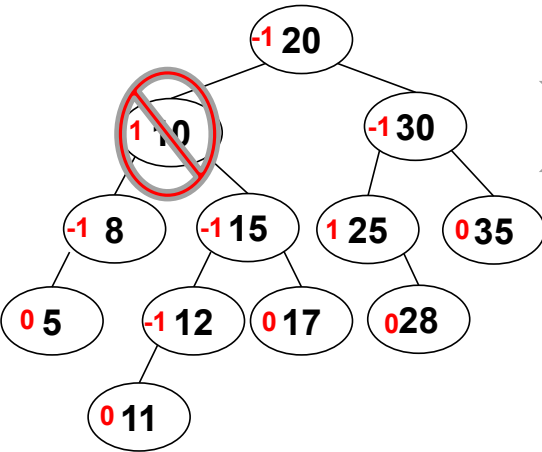
Remove 10



Remove Example 2

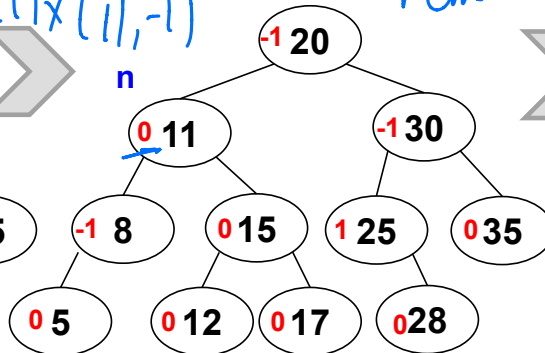
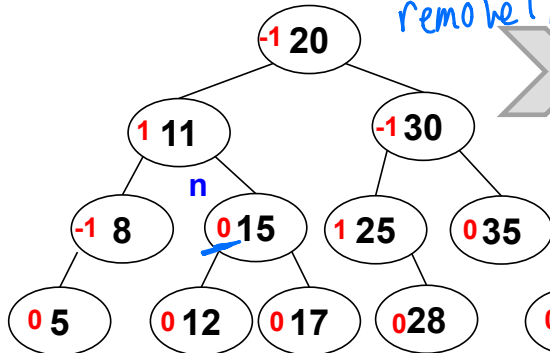
Remove 10

removefix(12, 1)

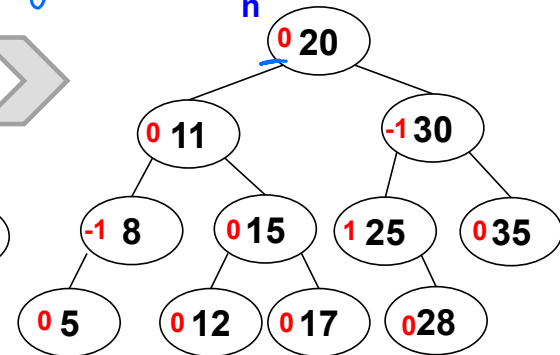


removefix(15, 1)

removefix(11, -1)

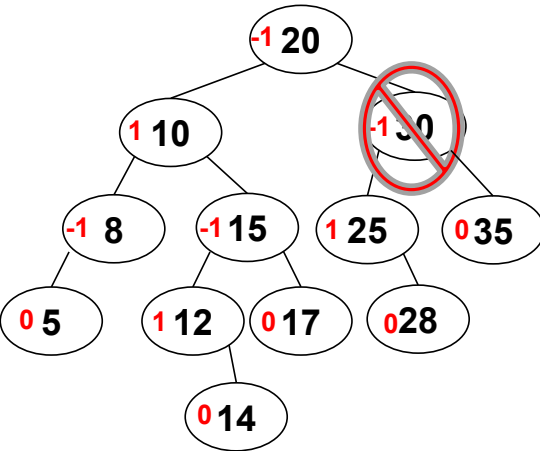


removefix(20, 1)



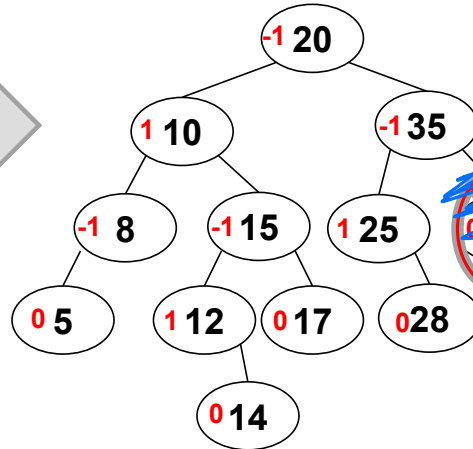
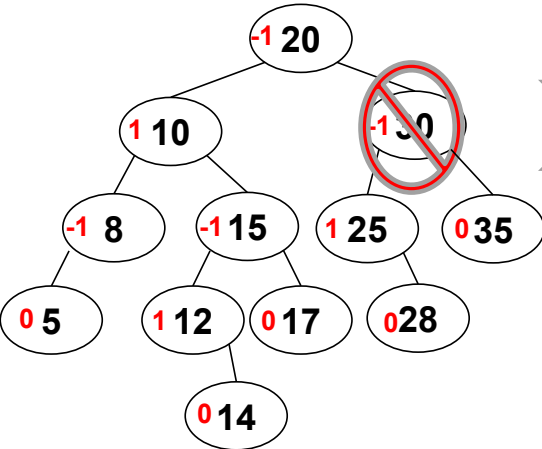
Remove Example 3

Remove 30



Remove Example 3

Remove 30

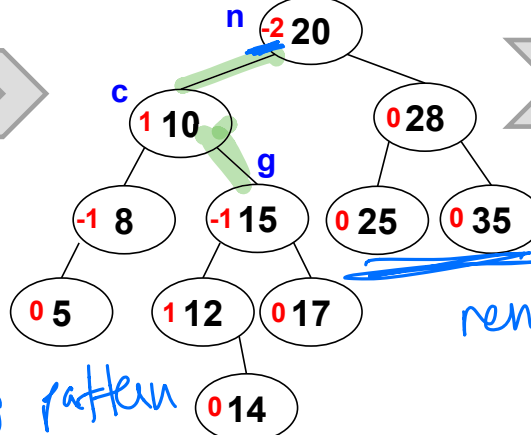
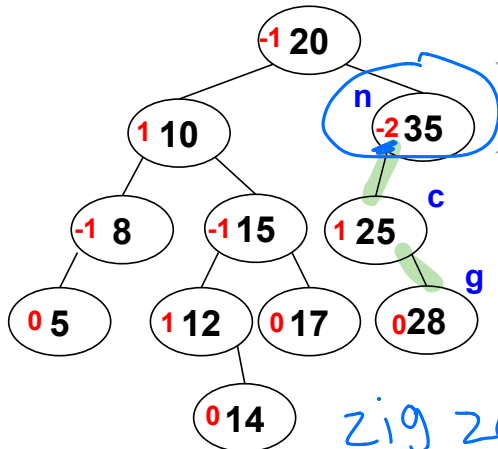


else if $b(c) == 1$ (zig-zag case)

- rotateLeft(c) then rotateRight(n)
- Let $g = \text{right}(c)$, $b(g) = 0$
- If $b(g) == +1$ then $b(n) = 0$, $b(c) = -1$, $b(g) = 0$
- If $b(g) == 0$ then $b(n) = b(c) = 0$, $b(g) = 0$
- If $b(g) == -1$ then $b(n) = +1$, $b(c) = 0$, $b(g) = 0$
- removeFix(parent(p), ndiff);



remove fix(35, -1)



remove fix(20, -1)

rotate left(25, 28)
rotate right(35, 28)

Remove Example 3 (cont)

Remove 30 (cont.)

zig zag pattern
rotate Left (10, 15)
rotate Right (20, 15)

else if $b(c) == 1$ (zig-zag case)

- rotateLeft(c) then rotateRight(n)
- Let $g = \text{right}(c)$, $b(g) = 0$
- If $b(g) == +1$ then $b(n) = 0$, $b(c) = -1$, $b(g) = 0$
- If $b(g) == 0$ then $b(n) = b(c) = 0$, $b(g) = 0$
- If $b(g) == -1$ then $b(n) = +1$, $b(c) = 0$, $b(g) = 0$
- removeFix(parent(p), ndiff);

