

$$T(n) = 2T\left(\frac{n}{3}\right) + 5n$$

$$T\left(\frac{n}{3}\right) = 2T\left(\frac{n}{9}\right) + 5\left(\frac{n}{3}\right)$$

$$T\left(\frac{n}{9}\right) = 2T\left(\frac{n}{27}\right) + 5\left(\frac{n}{9}\right)$$

$$T(n) = 5n + 2 \cdot 5\left(\frac{n}{3}\right) + 4 \cdot 5\left(\frac{n}{9}\right) + 8T\left(\frac{n}{27}\right)$$

$$= 2^0 \cdot 5 \cdot \frac{n}{3^0} + 2^1 \cdot 5 \cdot \frac{n}{3^1} + 2^2 \cdot 5 \cdot \frac{n}{3^2} + 8T\left(\frac{n}{27}\right)$$

$$= 5n \sum_{i=0}^{\log_3 n} \left(\frac{2}{3}\right)^i$$

$$\frac{n}{3^i} = 1 \quad n = 3^i$$

$$i = \log_3 n$$

$$= 5n \left(\frac{\left(\frac{2}{3}\right)^{\log_3 n + 1} - 1}{\frac{2}{3} - 1} \right) = 5n \left(\frac{1 - \left(\frac{2}{3}\right)^{\log_3 n + 1}}{\frac{1}{3}} \right)$$

$$= 15n \left(1 - \frac{2}{3} \cdot \frac{2^{\log_3 n}}{3^{\log_3 n}} \right) = 15n \left(1 - \frac{2}{3} \cdot \frac{n^{\log_3 2}}{n} \right)$$

$$= 15n \frac{3n - 2n^{\log_3 2}}{3n} = 15n - 10n^{\log_3 2}$$

$$T(n) = \Theta(n)$$

49		37	33	27	144	56		89	221		
221	16	89	36	144	27	33	91	132	37	49	53
\uparrow_i		\uparrow_i	\uparrow_i	\uparrow_i	\uparrow_i	\uparrow_j		\uparrow_j		\uparrow_j	

$x=53$

49	16	37	33	27	53	56	91	132	89	221	144
----	----	----	----	----	----	----	----	-----	----	-----	-----

16	49			
49	16	37	33	27
\uparrow_i	\uparrow_i	\uparrow_j		

$x=27$

16	27	37	33	49
----	----	----	----	----

56	91	132	89	221	144
		\uparrow_j	\uparrow_i		\uparrow_i

$x=144$

56	91	132	89	144	221
----	----	-----	----	-----	-----

221 16 89 56 144 27 33 259

17

34

51

68

85

102

119

136

153

170

187

204

221

238

255

0	221
1	338
2	
3	
4	89
5	56
6	259
7	
8	144
9	
10	27
11	
12	
13	
14	
15	
16	16

$$221 \times 17 = 0$$

$$16 \times 17 = 16$$

$$89 \times 17 = 4$$

$$56 \times 17 = 5$$

$$144 \times 17 = 8$$

$$27 \times 17 = 10$$

$$33 \times 17 = 16 \text{ collezione in } 16$$

collezione in 0

1

$$259 \times 17 = 4 \text{ collezione in } 4$$

collezione in 5

6

IMPORTANTE!

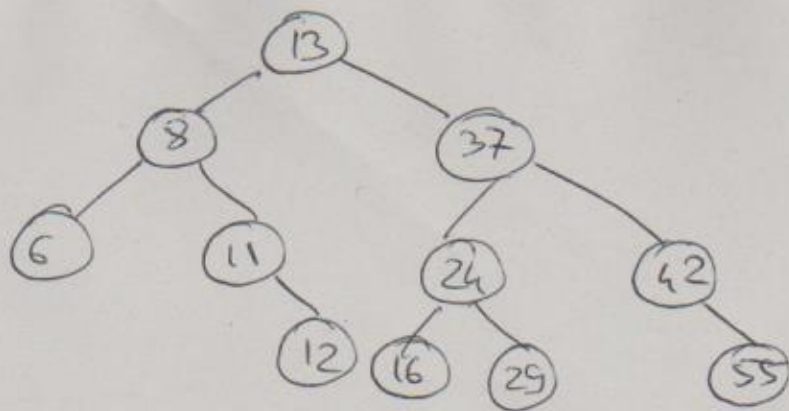
Pagina allineamento stampante:

Scansionare questa pagina per ottimizzare la qualità di stampa.

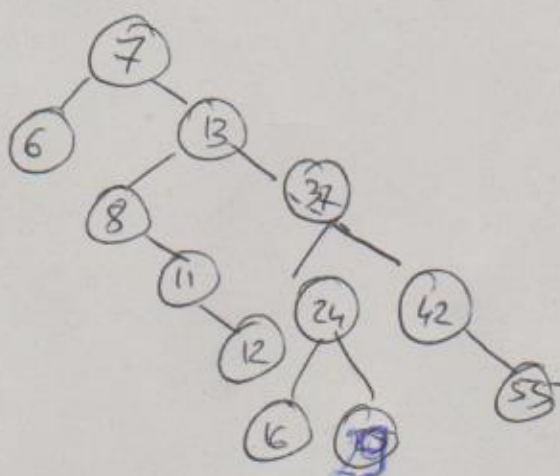
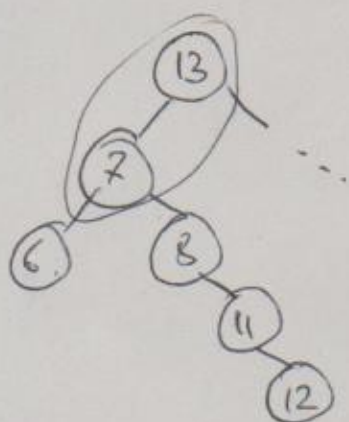
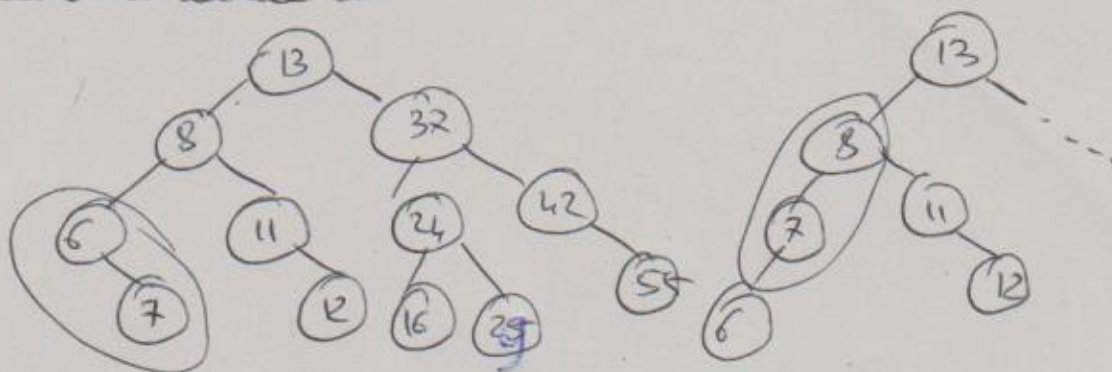
PUNTO 1: Sollevare il coperchio dello scanner. Posizionare questa pagina a faccia in giù sul vetro, come illustrato.

PUNTO 2: Chiudere il coperchio. Toccare "Scansione".

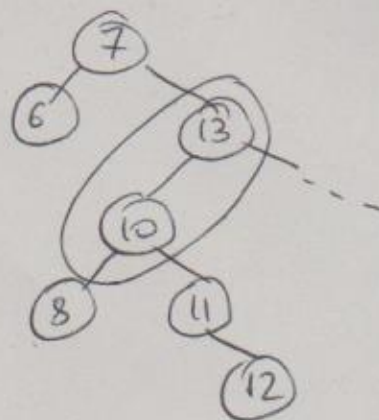
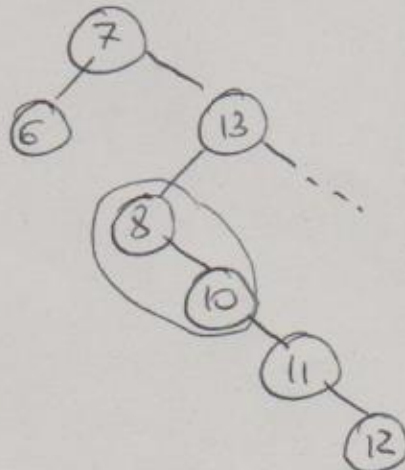
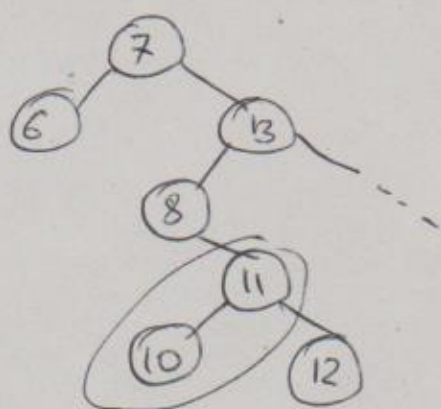


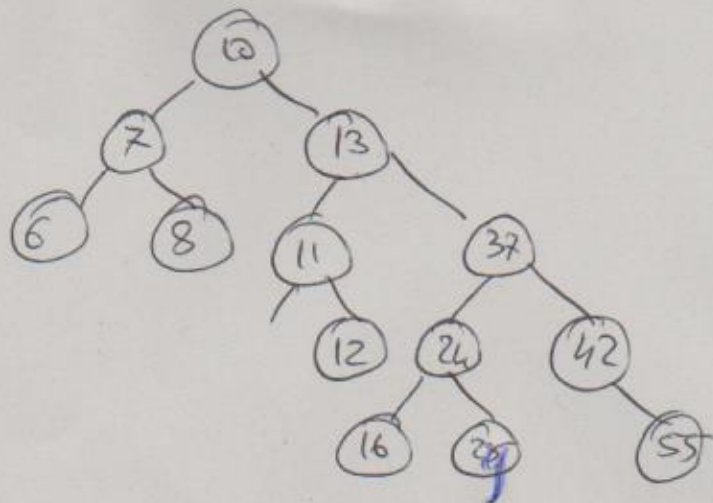
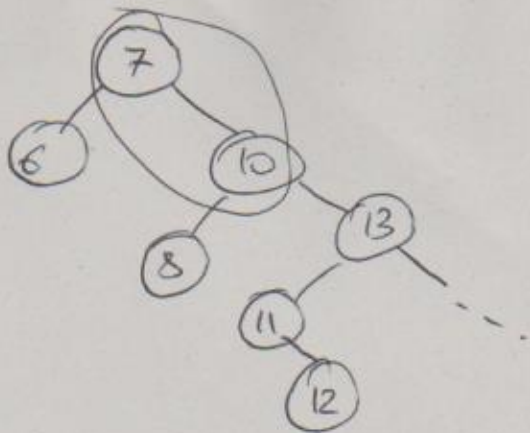


inserimento in radice di 7



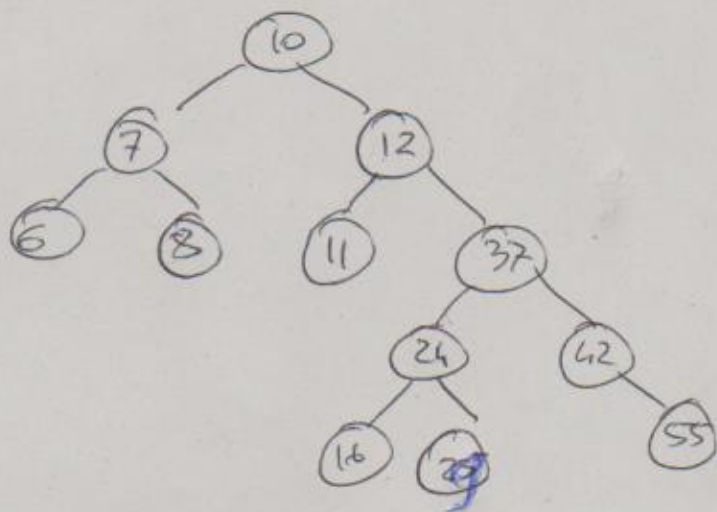
inserimento di 10 in radice





Cancellazione di 13

predecessore 12



successore 16

