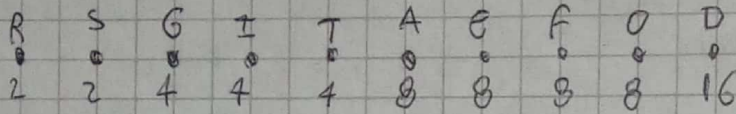
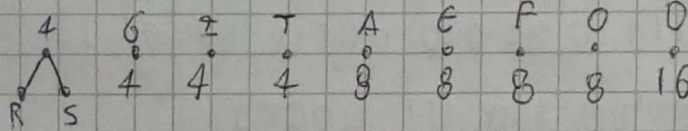


Taller 6 - Grafos

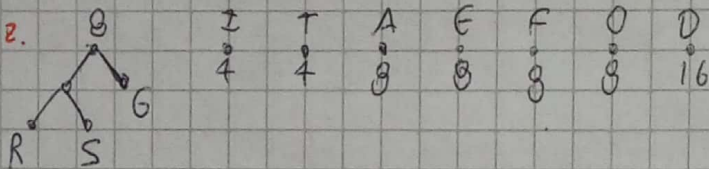
2)  
a)



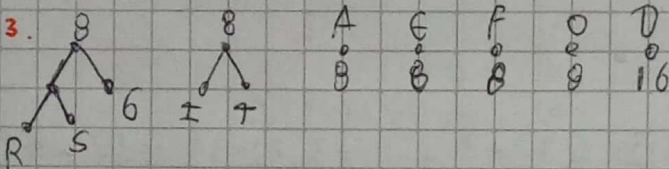
1.



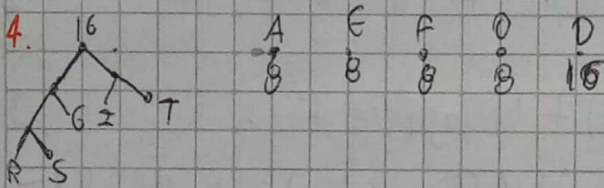
2.



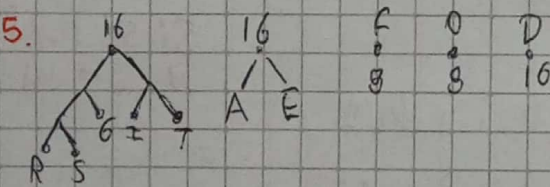
3.



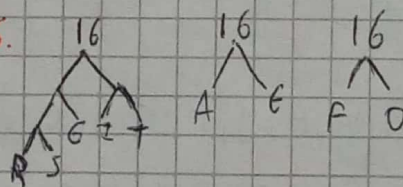
4.



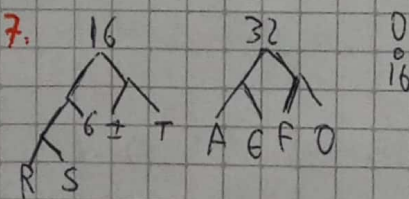
5.



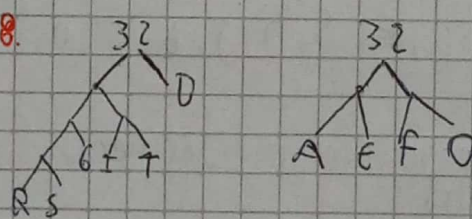
6.



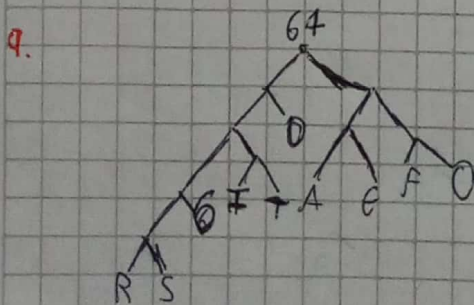
7.



8.



9.





• R → 00000  
 • S → 00001  
 • G → 0001  
 • I → 0010  
 • T → 0011

• A → 100  
 • E → 101  
 • F → 110  
 • O → 111  
 • D → 01

→ TEORIA DE GRAFOS: 0011, 101, 111, 00000, 0010, 100, 01, 101...  
 ... 0001, 00000, 100, 110, 111, 00001

b)

	$P_i$	$L_i$		$P_i$	$L_i$
A	$1/8$	3	I	$1/16$	4
D	$1/4$	2	O	$1/8$	3
E	$1/8$	3	R	$1/32$	5
F	$1/8$	3	S	$1/32$	5
G	$1/16$	4	T	$1/16$	4

• Longitud esperada:  $\sum P_i L_i = \frac{3}{8} + \frac{1}{2} + \frac{3}{8} + \frac{3}{8} + \frac{1}{4} + \frac{1}{4} + \frac{3}{8} + \frac{5}{32} + \frac{5}{32} + \frac{1}{4} = 49/16$   
 ↓  
 3.0625

• Entropía:  $-\sum P_i \log_2 P_i = 4(1/8 \log_2 1/8) + 1/4 \log_2 1/4 + \dots$   
 $\dots + 3(1/16 \log_2 1/16) + 2(1/32 \log_2 1/32) = 3.0625$

③

Preorder: a, b, e, k, l, m, f, g, n, r, s, c, d, h, o, i, j, p, q.

Inorder: k, e, l, m, b, f, r, n, s, g, a, c, o, h, d, i, p, j, q.

Posorder: k, l, m, e, f, r, s, n, g, b, c, o, h, i, p, q, j, d, a

Si se cumple la igualdad.

④

a). Me dice que no tengo que revisar necesariamente todos los vértices y va a parar antes.

b)  $S = \{a\}$   
 $L(b) = \min \{L(b), L(a) + w(a, b)\} = 4$   
 $L(c) = \min \{L(c), L(a) + w(a, c)\} = 3$

a-d: 6

a-g: 12

a-e: 7

a-z: 16

a-f: 11