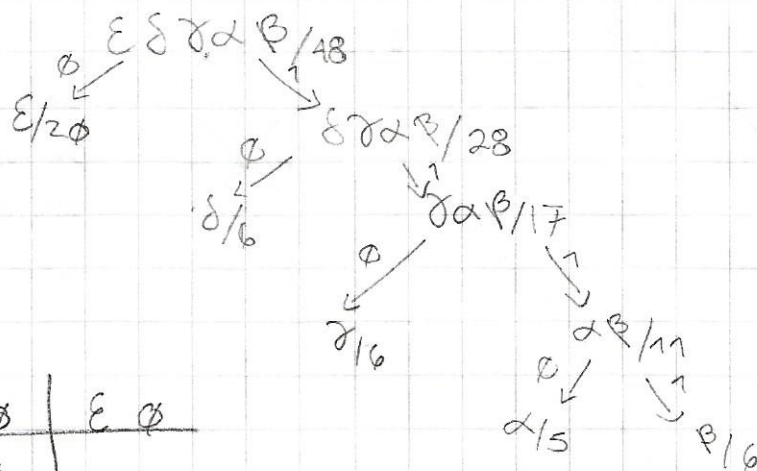


David Alfonso Velasco Sedano

7.1

| | | | | | |
|---|-----------------------------------|------------|------------|------------|------------|
| C | α | β | γ | δ | ϵ |
| F | 5 | 6 | 6 | 11 | 20 |
| | ↓ | ↓ | ↓ | ↓ | ↓ |
| C | $\alpha\beta$ | γ | δ | ϵ | |
| F | 11 | 6 | 11 | 20 | |
| | ↓ | ↓ | ↓ | ↓ | |
| C | $\gamma\alpha\beta$ | δ | ϵ | | |
| F | 17 | 11 | 20 | | |
| | ↓ | ↓ | ↓ | | |
| C | $\delta\gamma\alpha\beta$ | ϵ | | | |
| F | 28 | 20 | | | |
| | ↓ | ↓ | | | |
| C | $\epsilon\delta\gamma\alpha\beta$ | | | | |
| F | 48 | | | | |



7.2

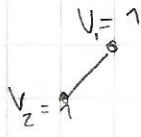
| | | | | | |
|----------|------|----------|-----|------------|---|
| α | 1110 | γ | 110 | ϵ | 0 |
| β | 1111 | δ | 10 | | |

1.3

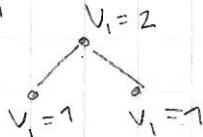
$$\epsilon\epsilon\alpha\beta\delta = 0\ 0\ 1110\ 1111\ 10$$

3.1

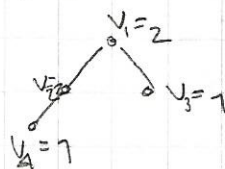
$$A_2 = \{1, 1\}$$



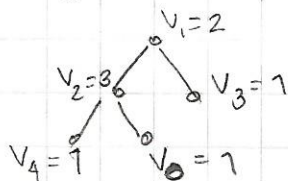
$$A_3 = \{2, 1, 1\}$$



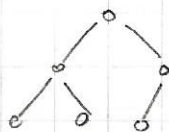
$$A_4 = \{2, 2, 1, 1\}$$



$$A_5 = \{3, 2, 1, 1, 1\}$$



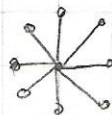
$$A_6 = \{3, 2, 2, 1, 1, 1\}$$



3.2



3.3



Es un árbol que tiene un vértice que todos los demás se conectan a.

3.4



3.5



3.6

No es posible,
no cumple con la
propiedad de

$$\# \text{Aristas} = \# \text{Vertices} - 1$$

3.7

$2(V-1)$. Es la sumatoria
de los grados. $2E$

$$2E = 2(V-1)$$

3.8

No se puede, debe
cumplir con la propiedad
de

$$\# \text{Aristas} = \# \text{Vertices} - 1$$

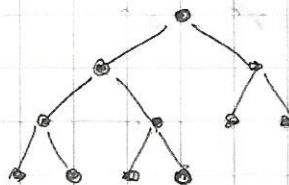
3.9

$$\leftarrow 2(V-1) = 10 \neq 14$$

3.10

- a) 3
- b) \emptyset
- c) 5
- d) U, V
- e) d
- f) K, l

3.11



$$(v-1) + 2$$

3.12

No se puede,
no cumple la propiedad
de

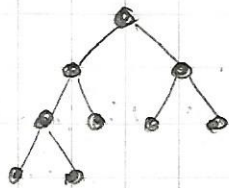
$$\text{Vertice Interno} = \text{Vertice Terminal} - 1$$

$$5 \neq (7-1)$$

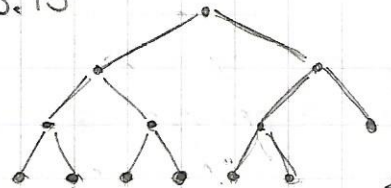
3.13

No se puede, no cumple
la propiedad de un árbol binario
teniendo un número impar de
vértices

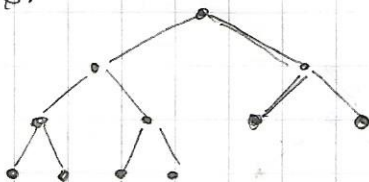
3.14



3.15



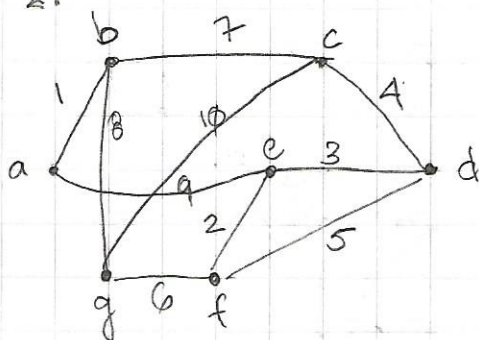
3.16



3.17

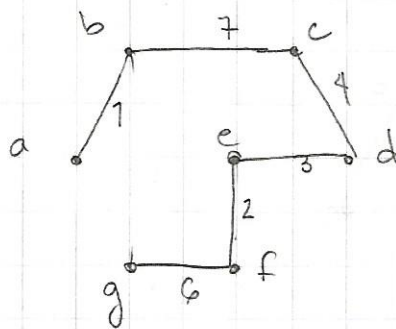
No se puede, el max.
número de vértices
terminales para un
nivel 3 son 8

3. 21



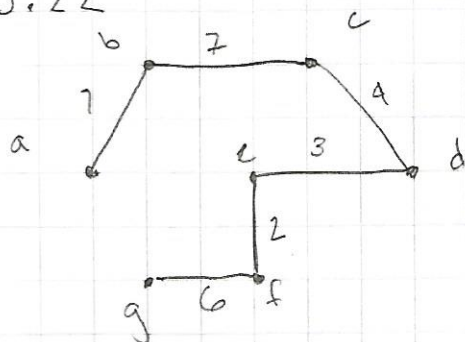
$G = [$

- $\{a, b, 1\}, \rightarrow$
- $\{f, e, 2\}, \rightarrow$
- $\{e, d, 3\}, \rightarrow$
- $\{c, d, 4\}, \rightarrow$
- $\{f, d, 5\}, \rightarrow$
- $\{g, f, 6\}, x$
- $\{b, c, 7\}, \rightarrow$
- $\{b, g, 8\}, \rightarrow$
- $\{a, e, 9\}, x$
- $\{g, c, 10\}, x$



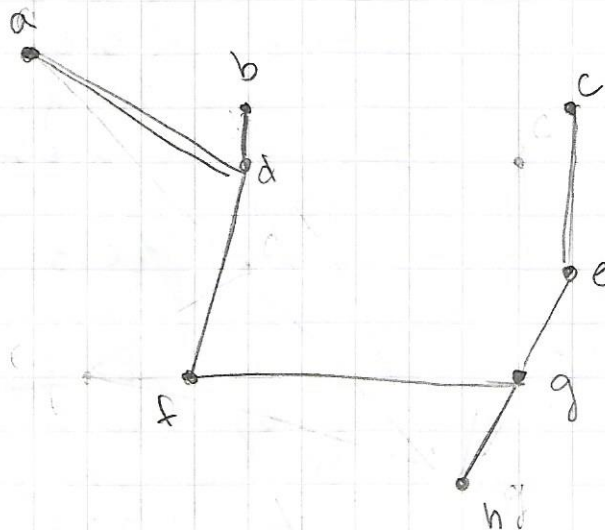
- $\{a, b, 1\}$
- $\{f, e, 2\}$
- $\{e, d, 3\}$
- $\{c, d, 4\}$
- $\{b, c, 7\}$
- $\{b, g, 8\}$

3.22



| | | | | |
|----|------------|------------|------------|--|
| 1. | a | $\{a, b\}$ | $\{a, c\}$ | |
| 2. | $\{a, b\}$ | $\{b, c\}$ | $\{b, g\}$ | |
| 3. | $\{a, b\}$ | $\{b, c\}$ | $\{c, d\}$ | |
| 4. | $\{a, b\}$ | $\{b, c\}$ | $\{c, d\}$ | |
| 5. | $\{a, b\}$ | $\{b, c\}$ | $\{c, d\}$ | |
| 6. | $\{a, b\}$ | $\{b, c\}$ | $\{c, d\}$ | |
| 7. | $\{a, b\}$ | $\{b, c\}$ | $\{c, d\}$ | |

3.23



a) Minneapolis
b) Milwaukee
c) Detroit

d) Chicago
e) Cincinnati
f) St. Louis

h) Nashville

db, 74
ge 83
hg 151
ce 230
fg 242
fd 262