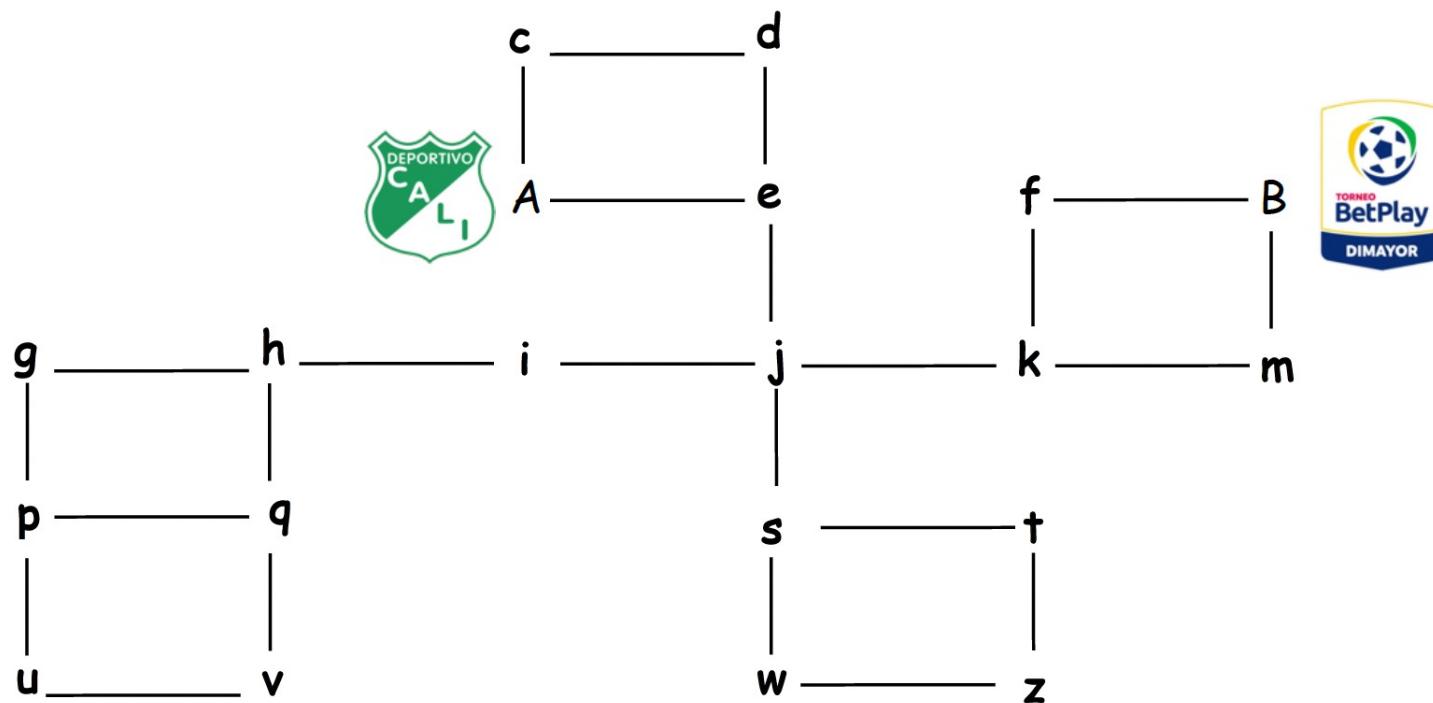


Inteligencia Artificial

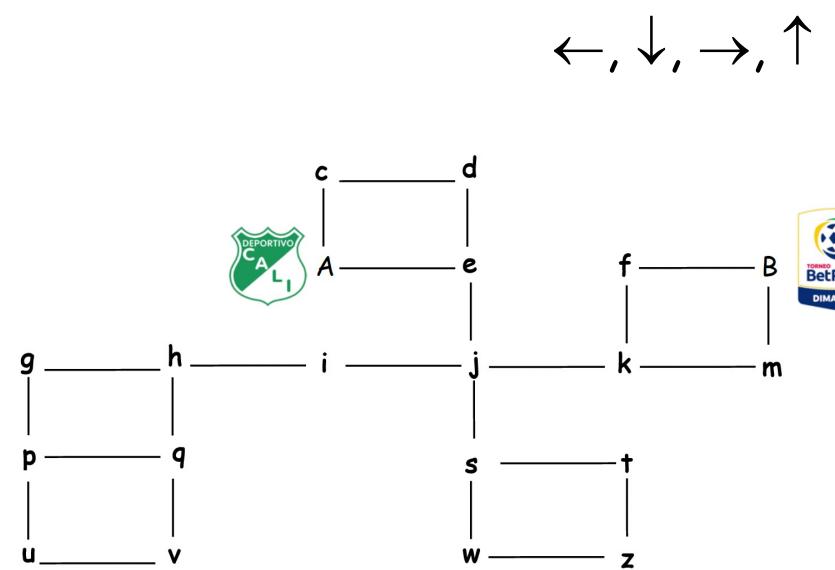
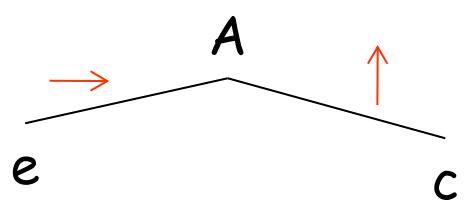
Oscar Bedoya

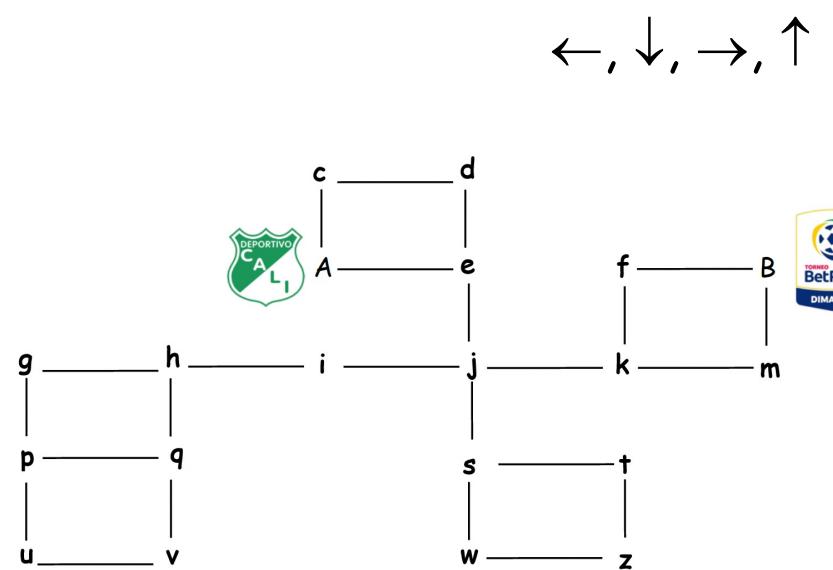
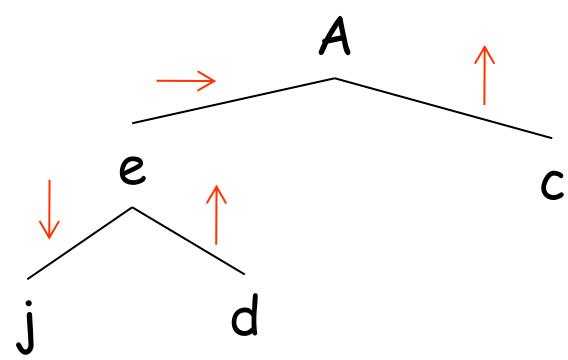
oscar.bedoya@correounivalle.edu.co

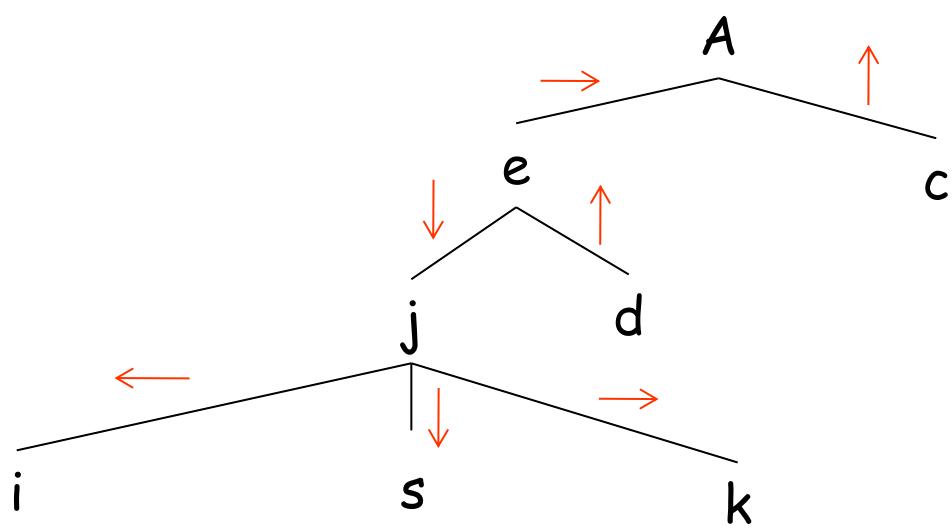
2. [I.L 1.3 (7pts)] El deportivo Cali está buscando la B y para ello usará el algoritmo por profundidad evitando ciclos. Considere el ambiente que se muestra en la figura donde el punto inicial es A y se tiene como objetivo llegar al sitio marcado con la letra B. Debe aplicar los operadores en el orden $\leftarrow, \downarrow, \rightarrow, \uparrow$.



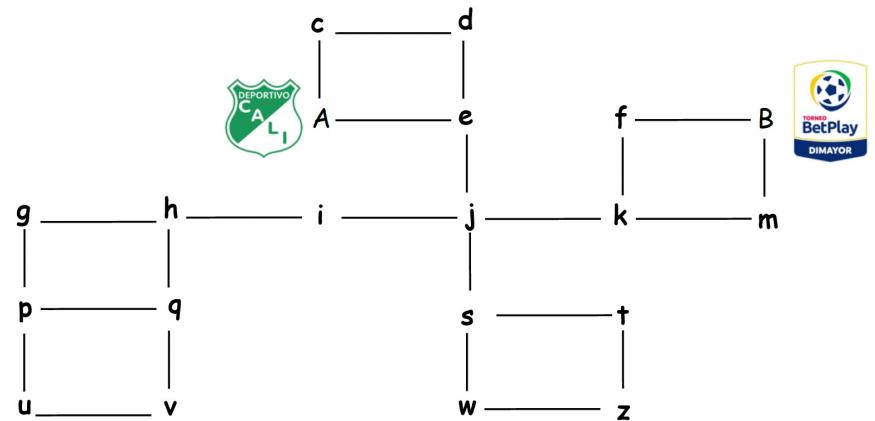
Muestre el árbol construido y la solución encontrada (el camino).

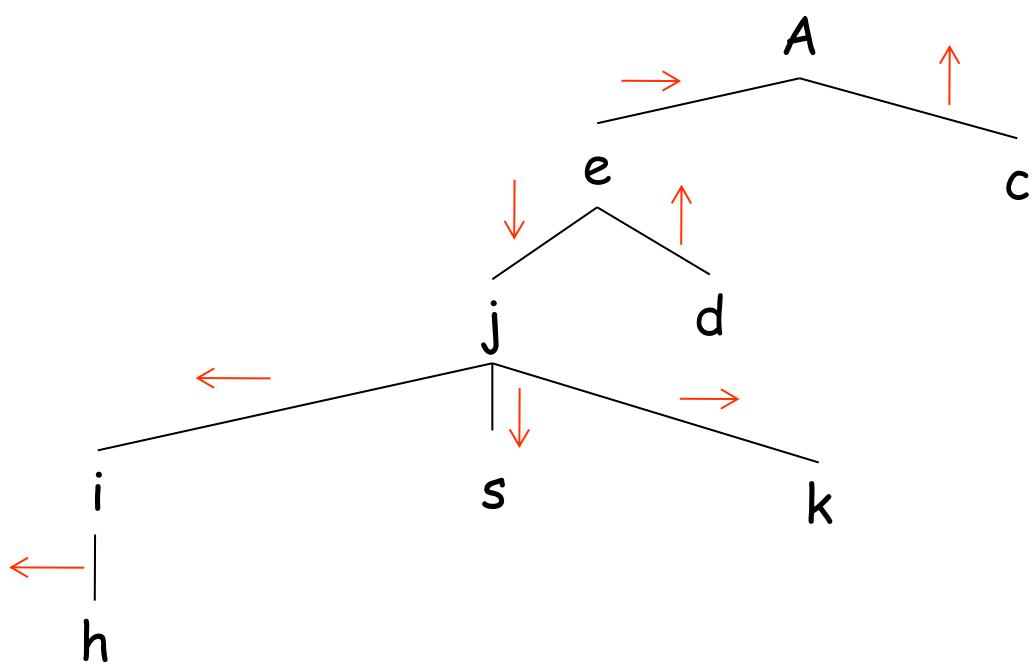




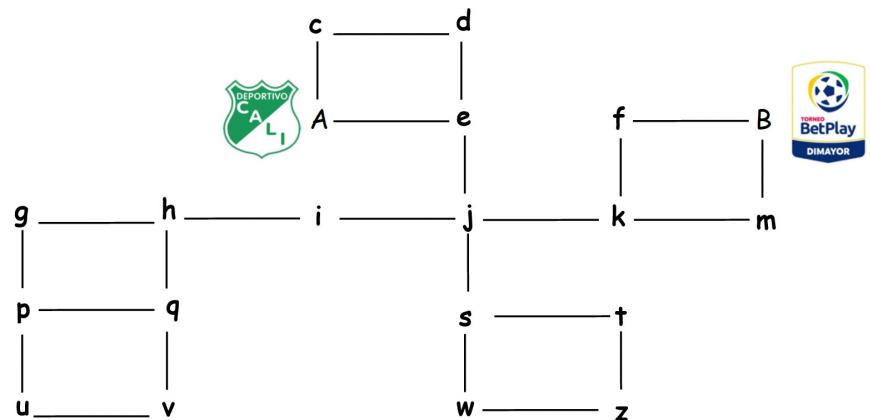


$\leftarrow, \downarrow, \rightarrow, \uparrow$





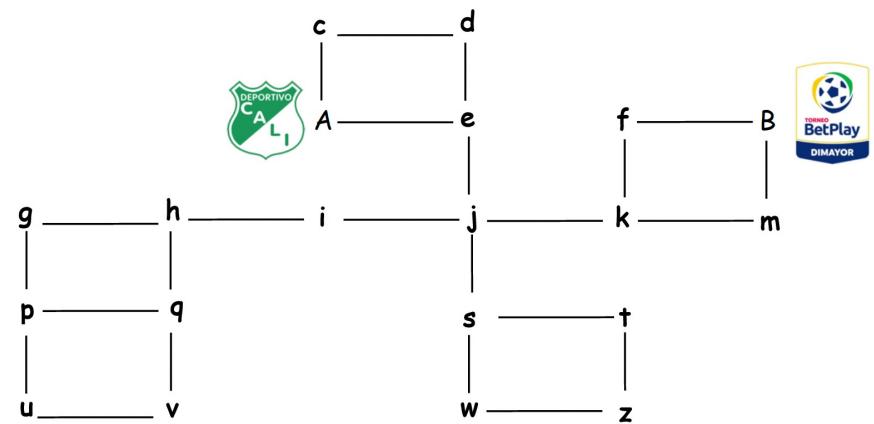
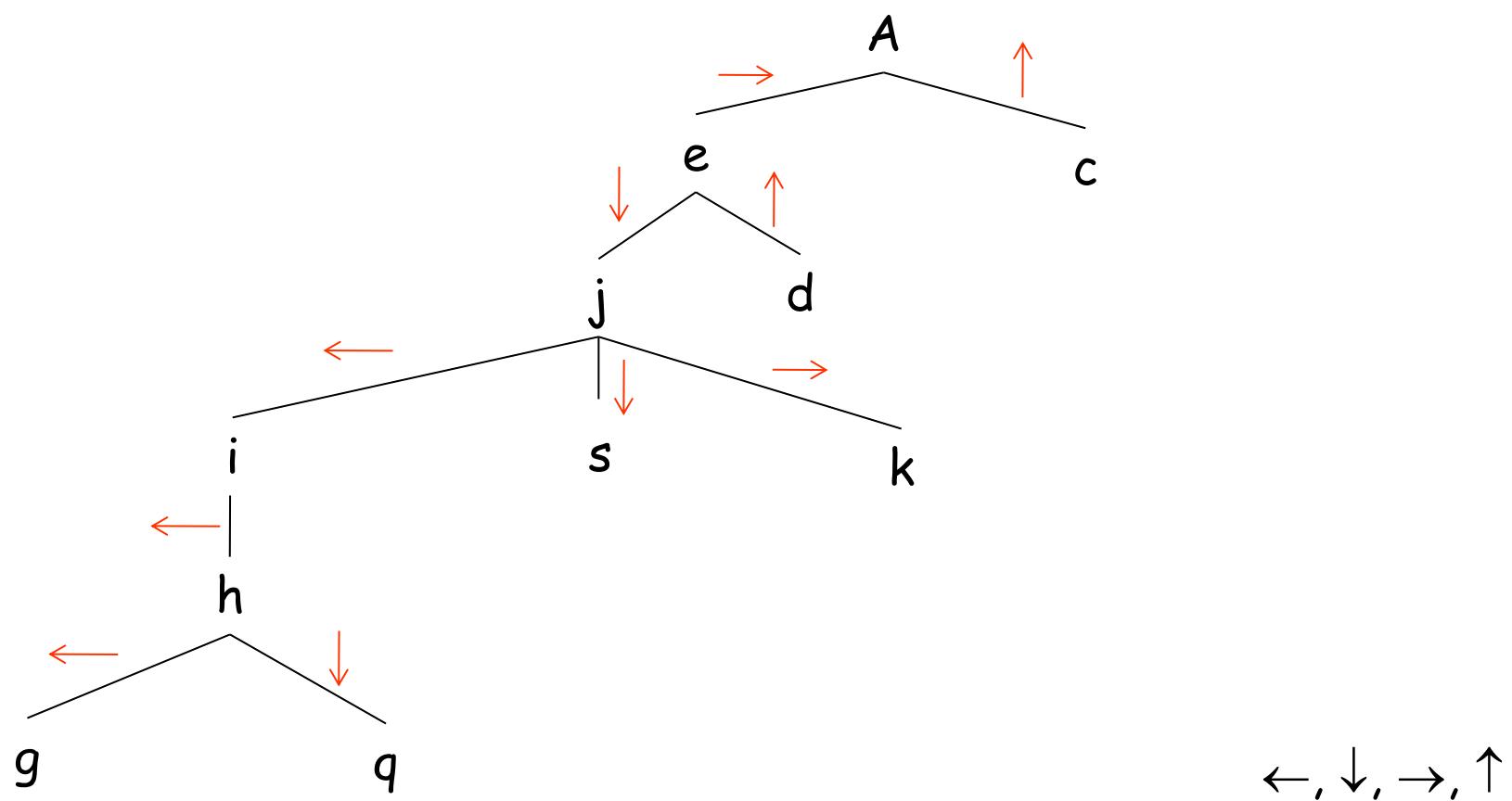
←, ↓, →, ↑

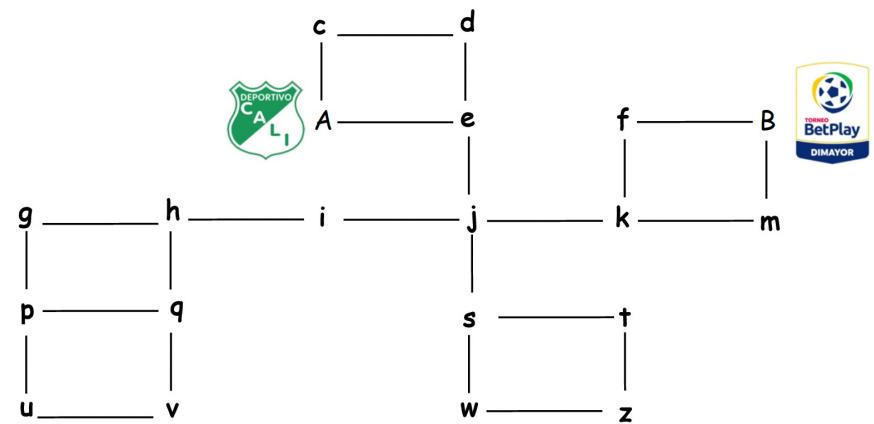
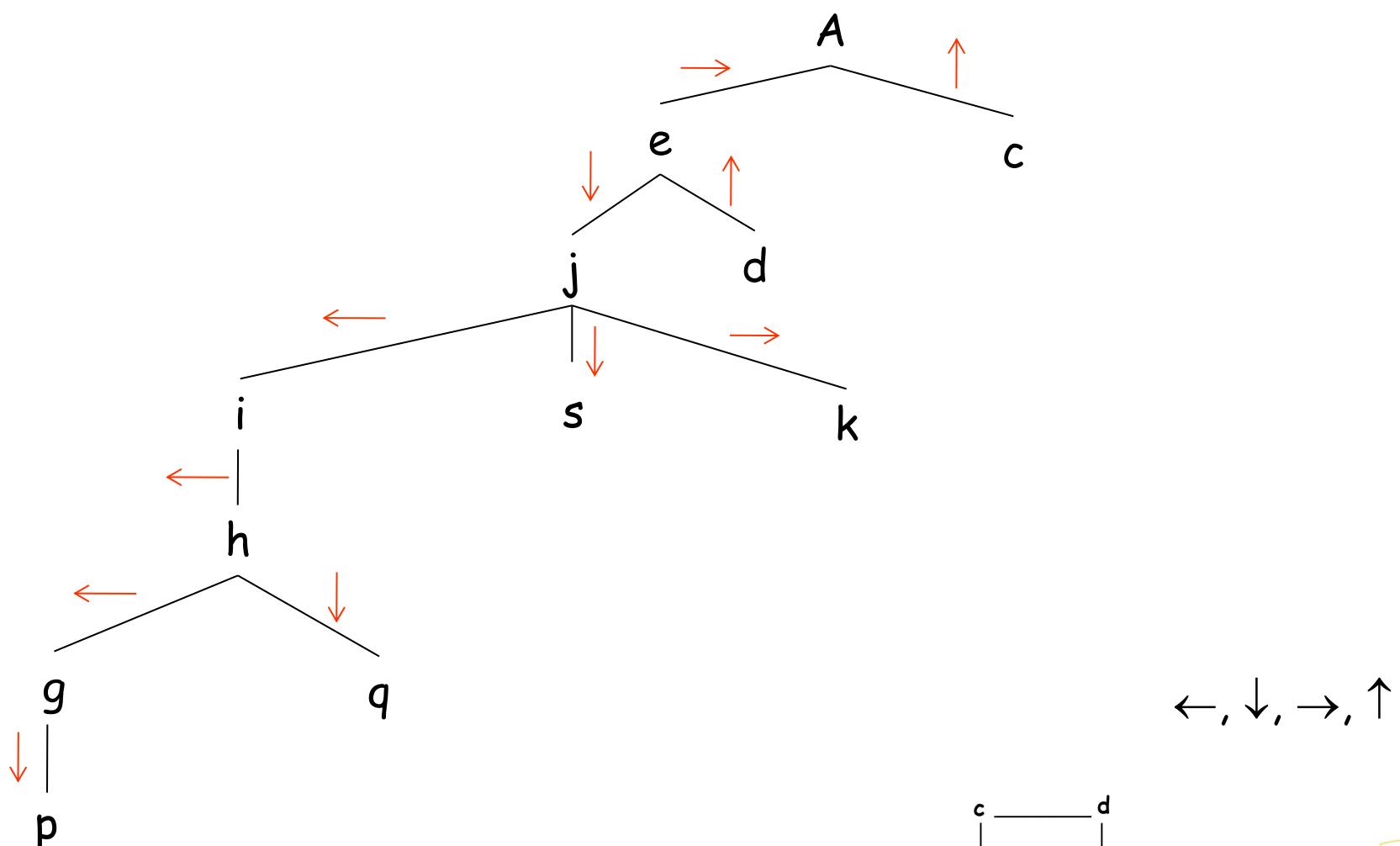


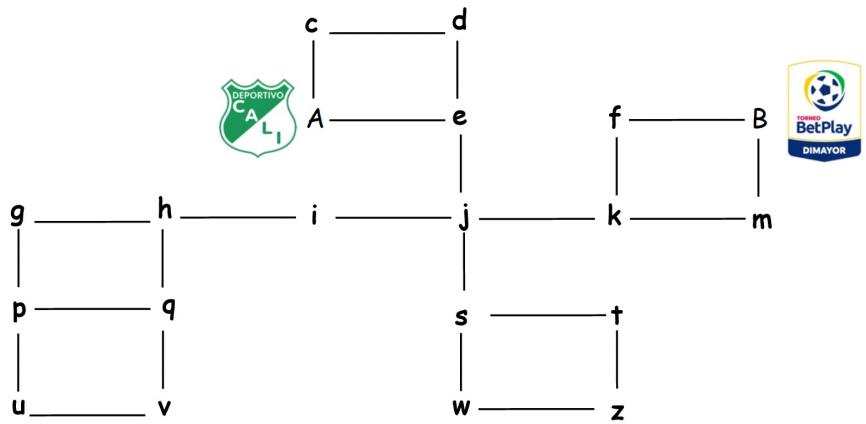
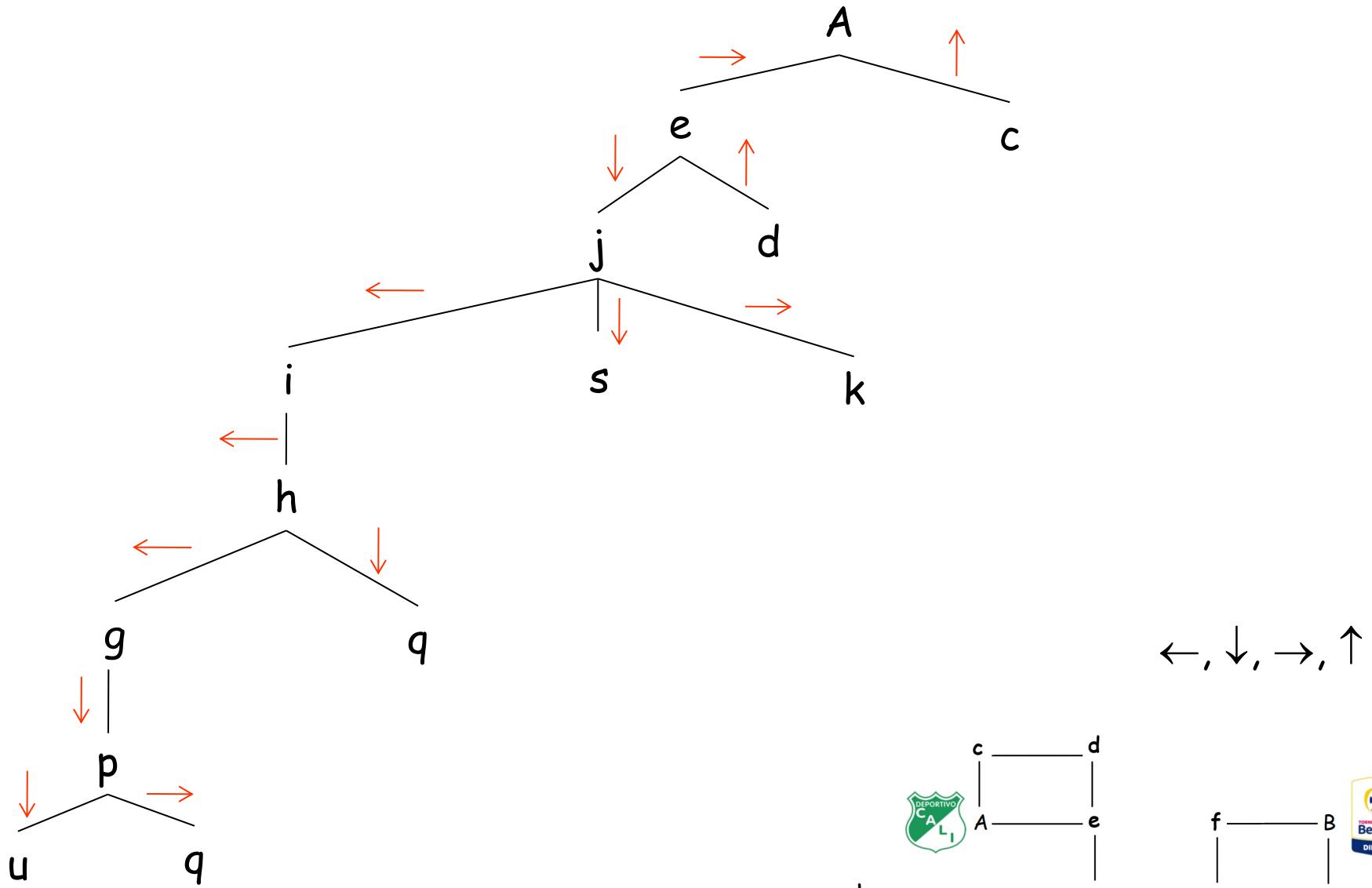
DEPORTIVO
CALI

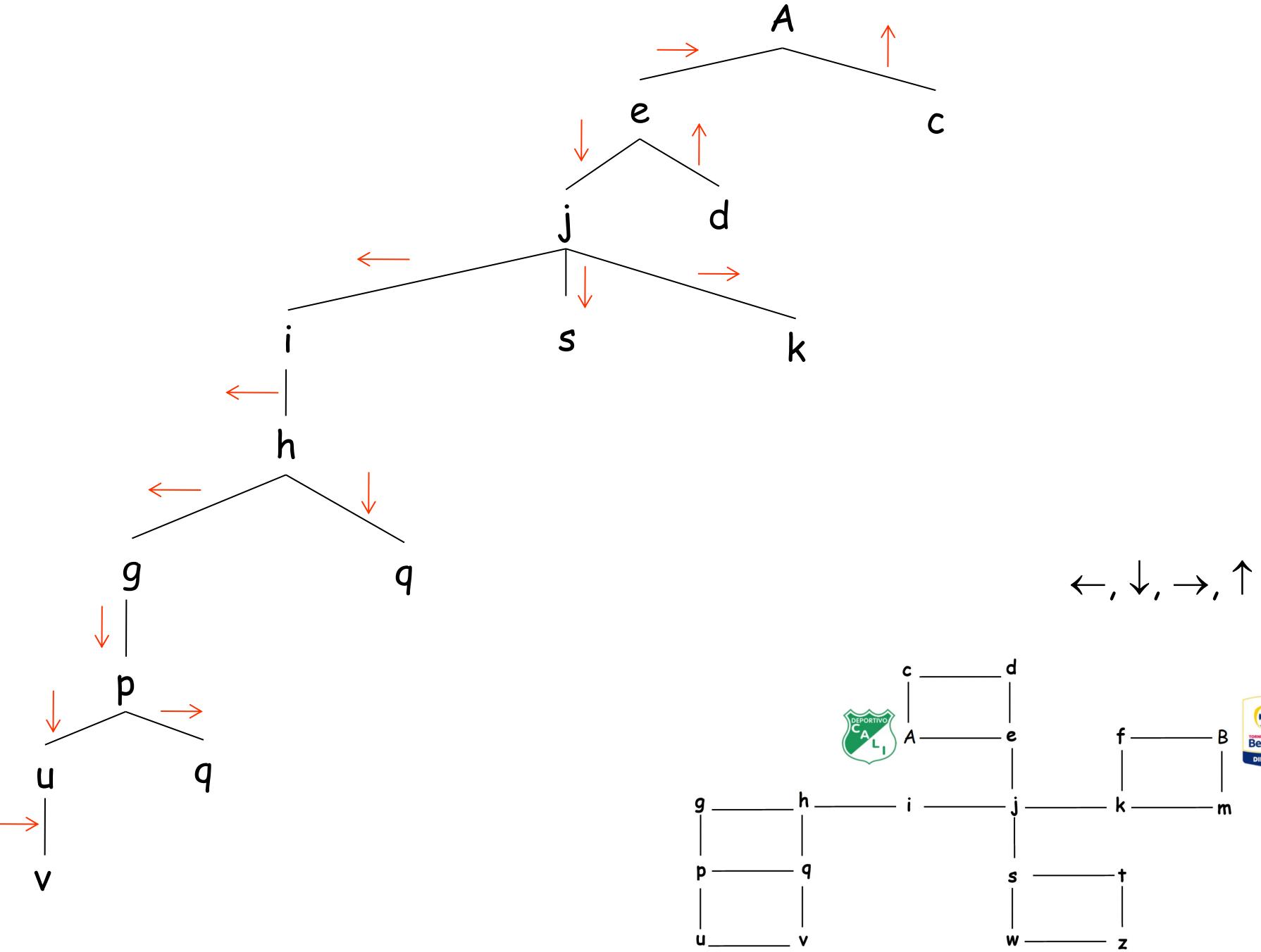
BETPLAY

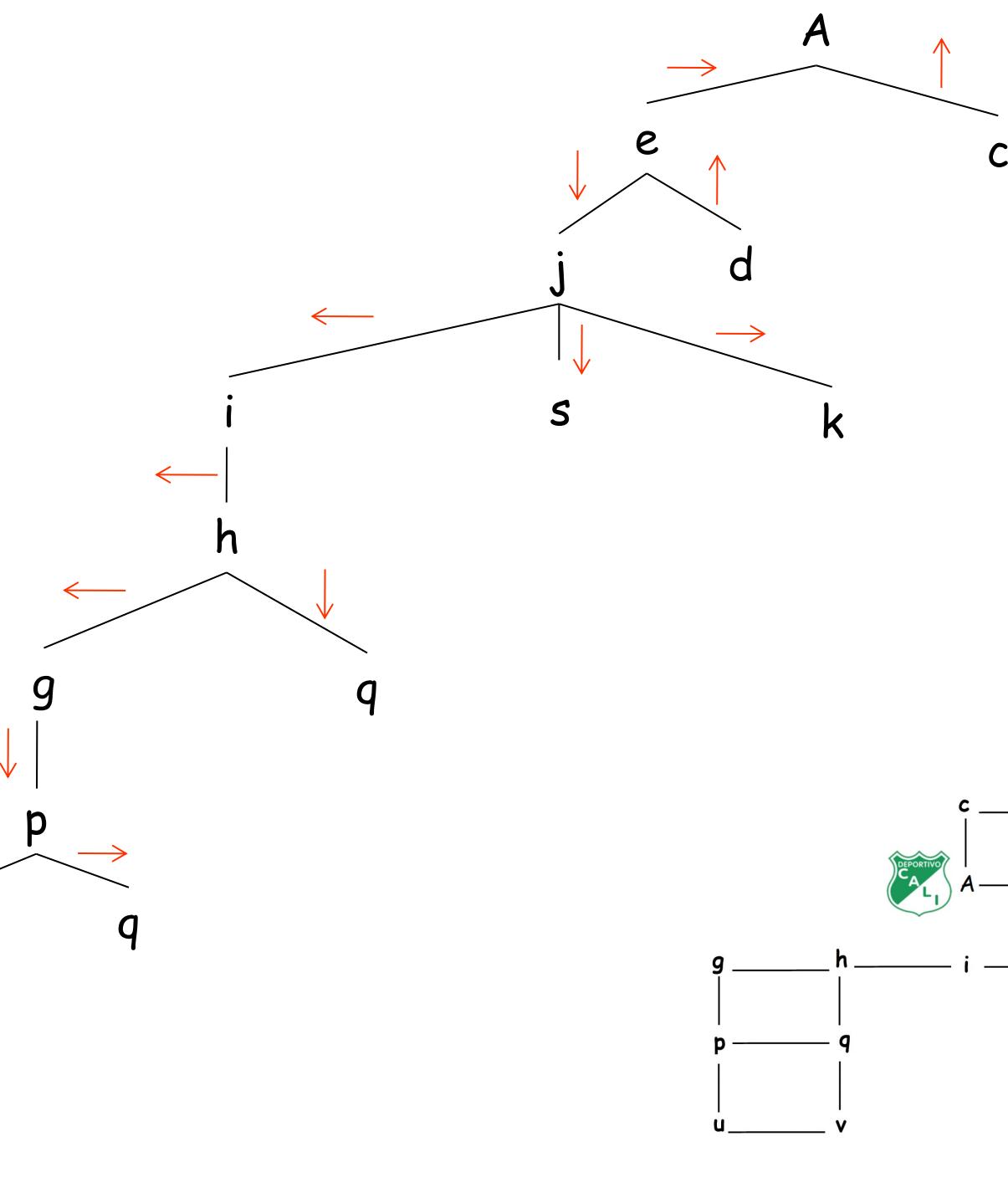
DIMAYOR



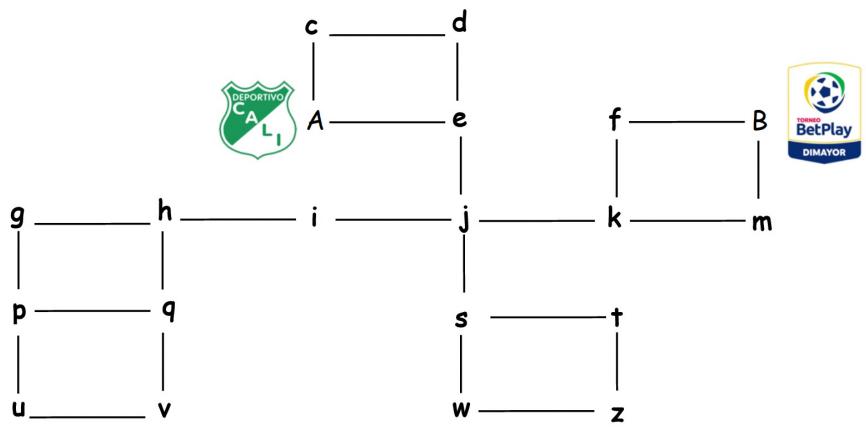


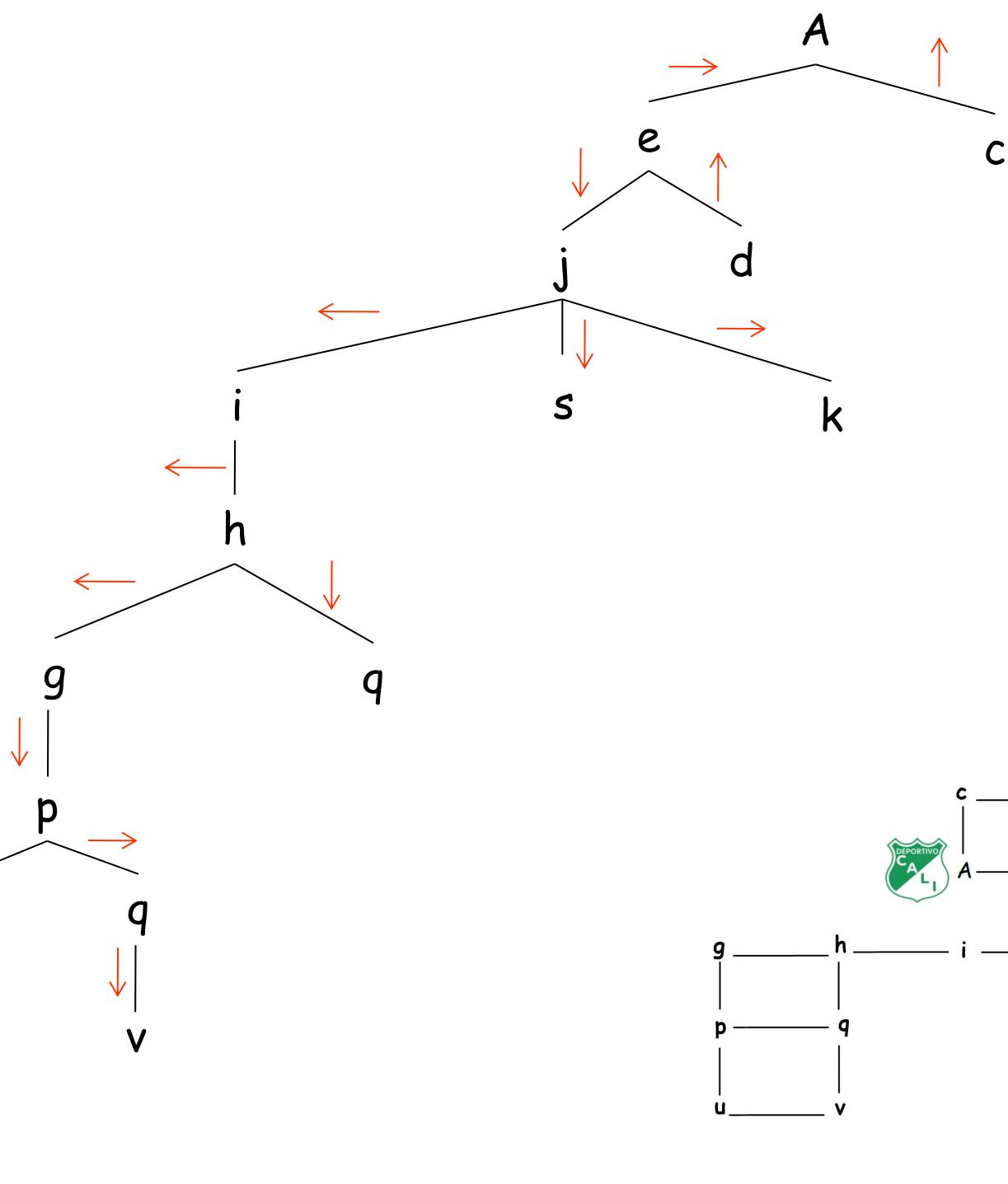




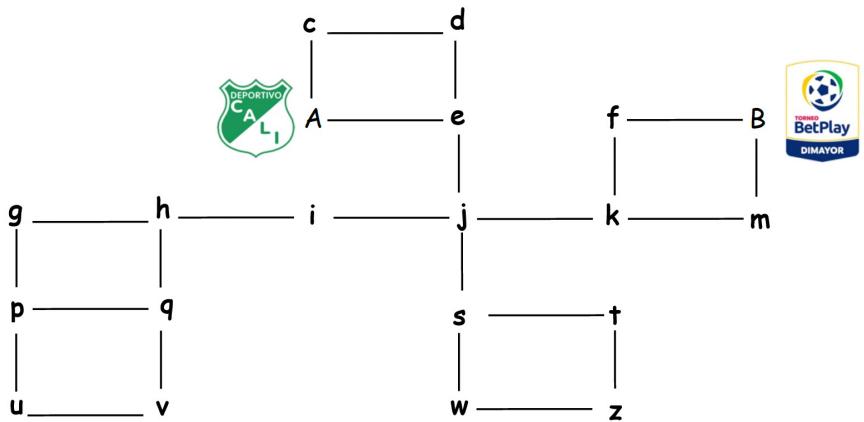


←, ↓, →, ↑

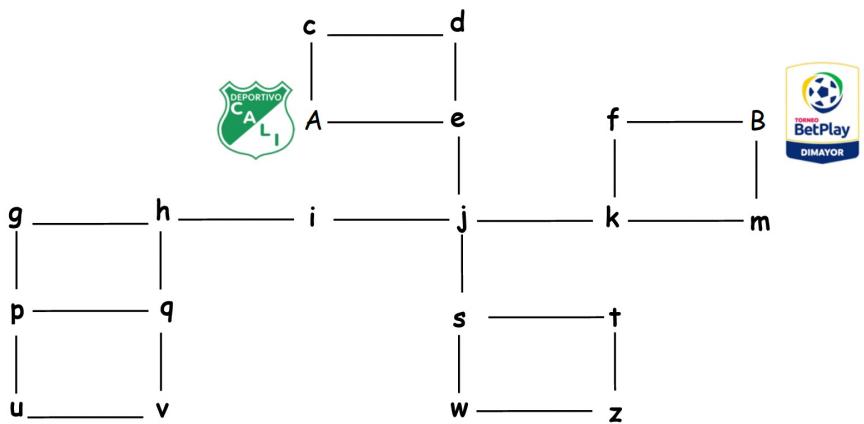
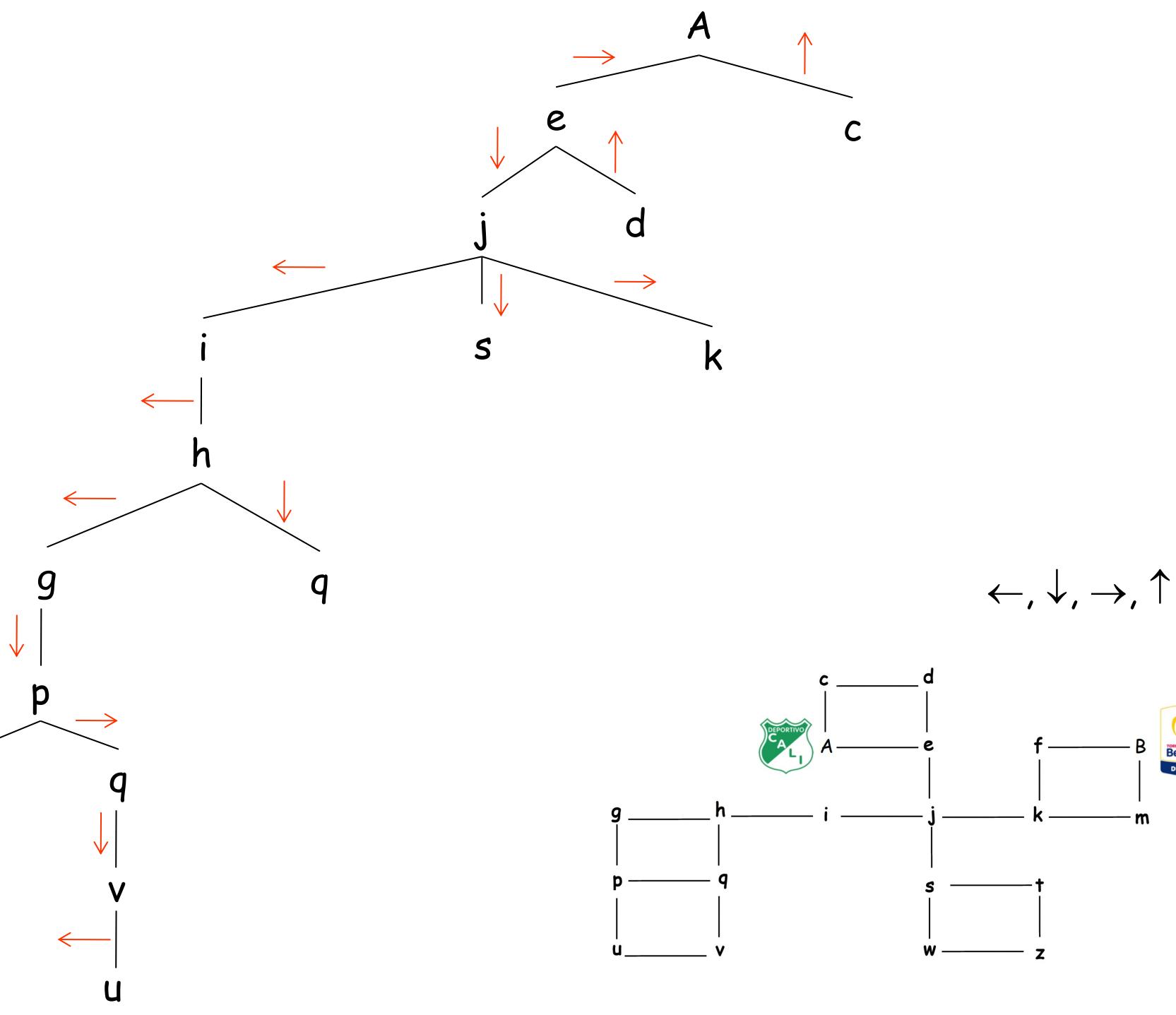


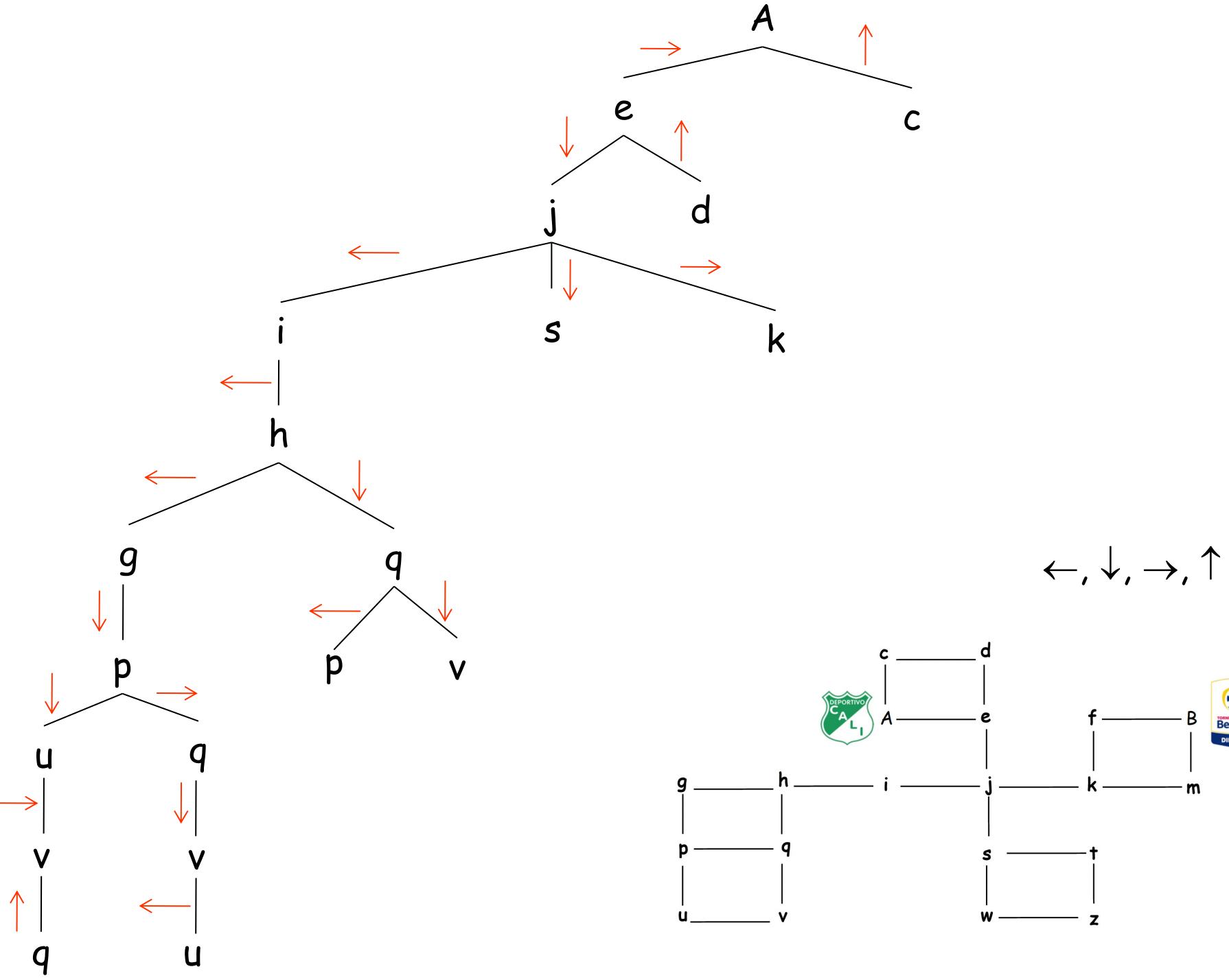


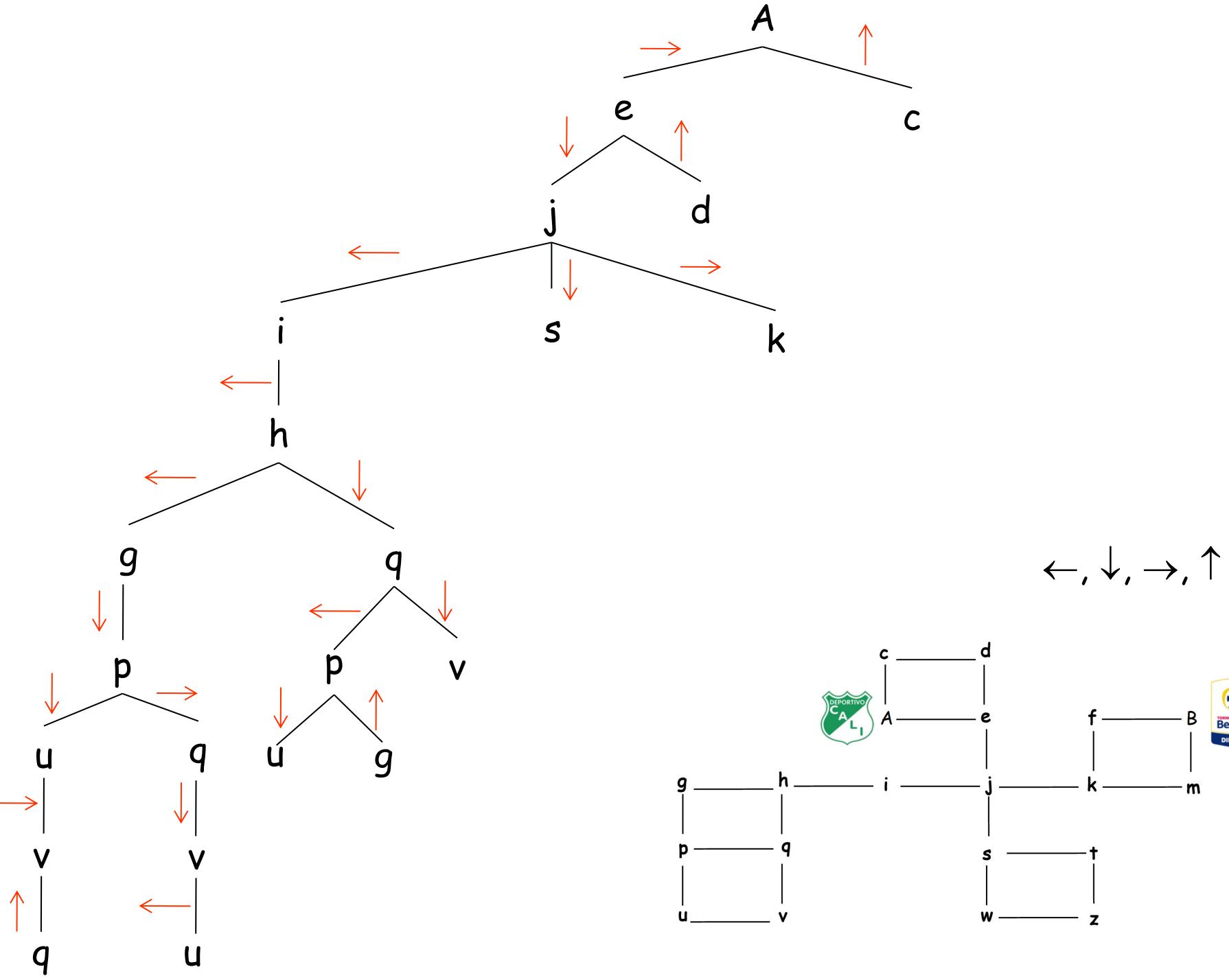
←, ↓, →, ↑

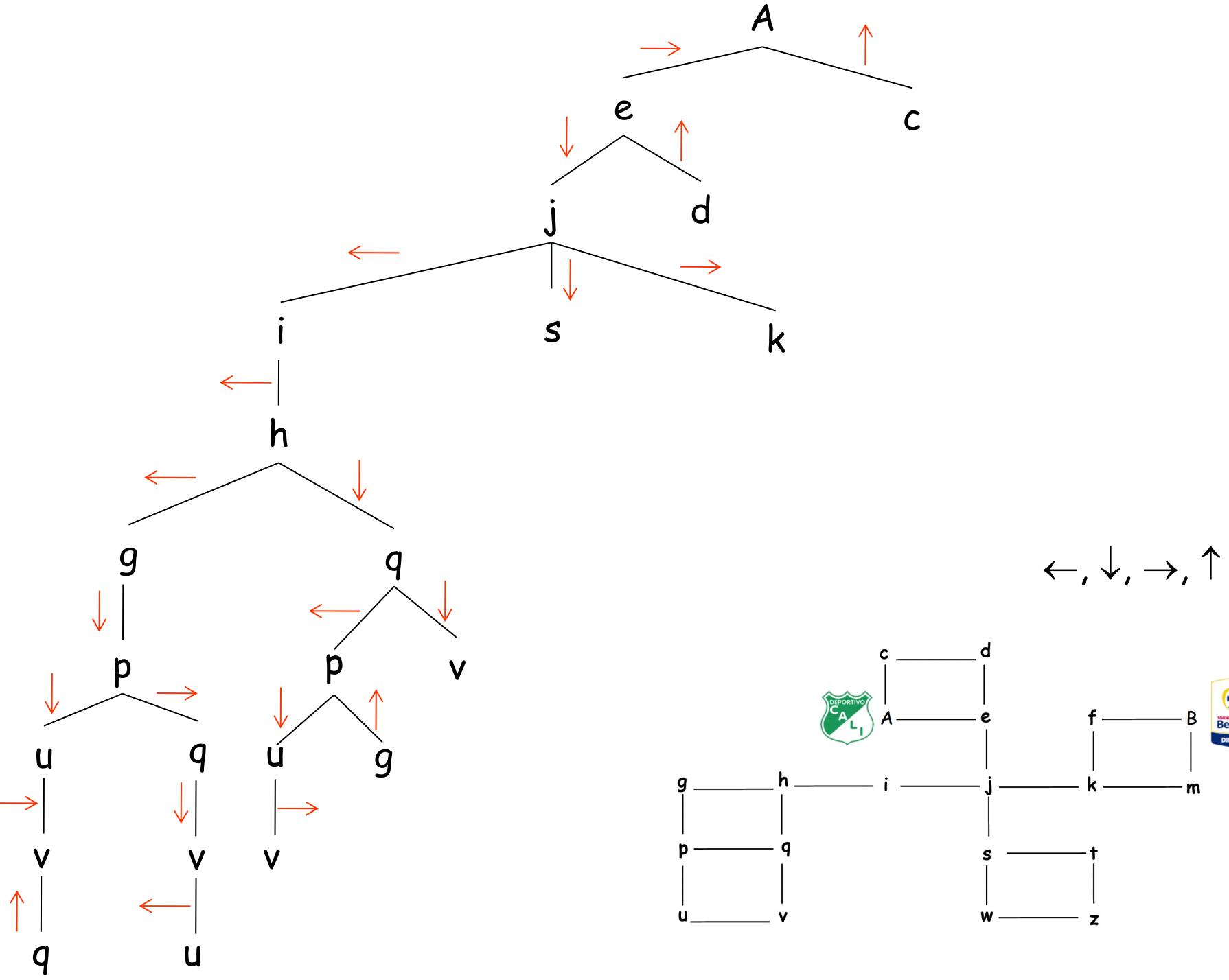


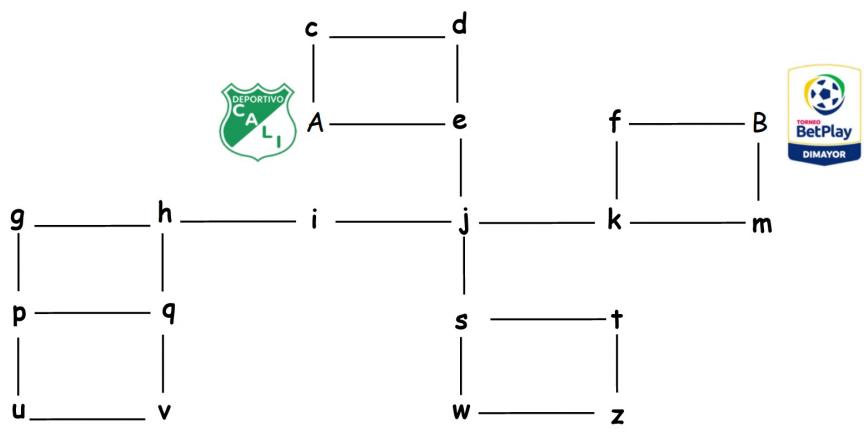
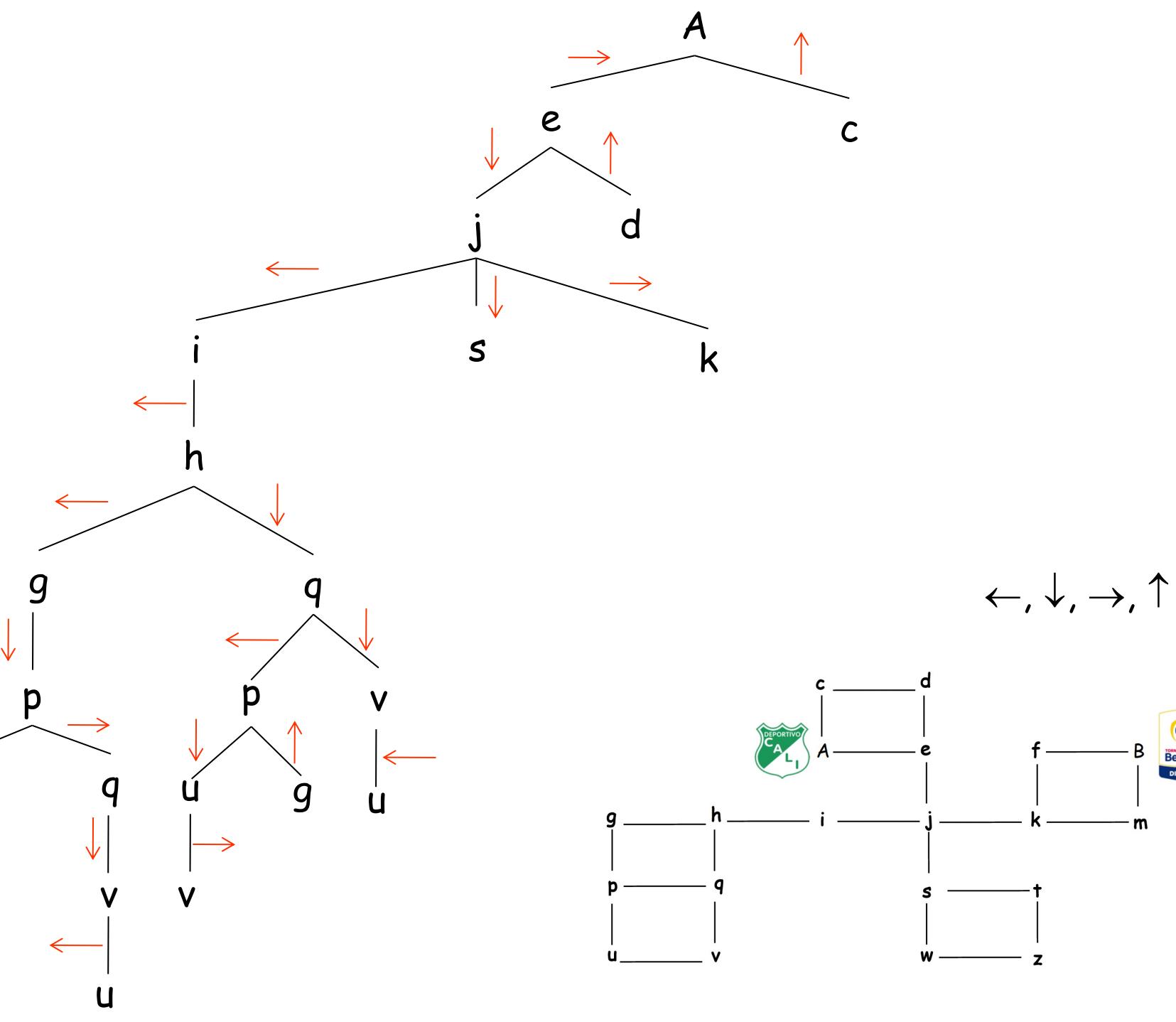
q

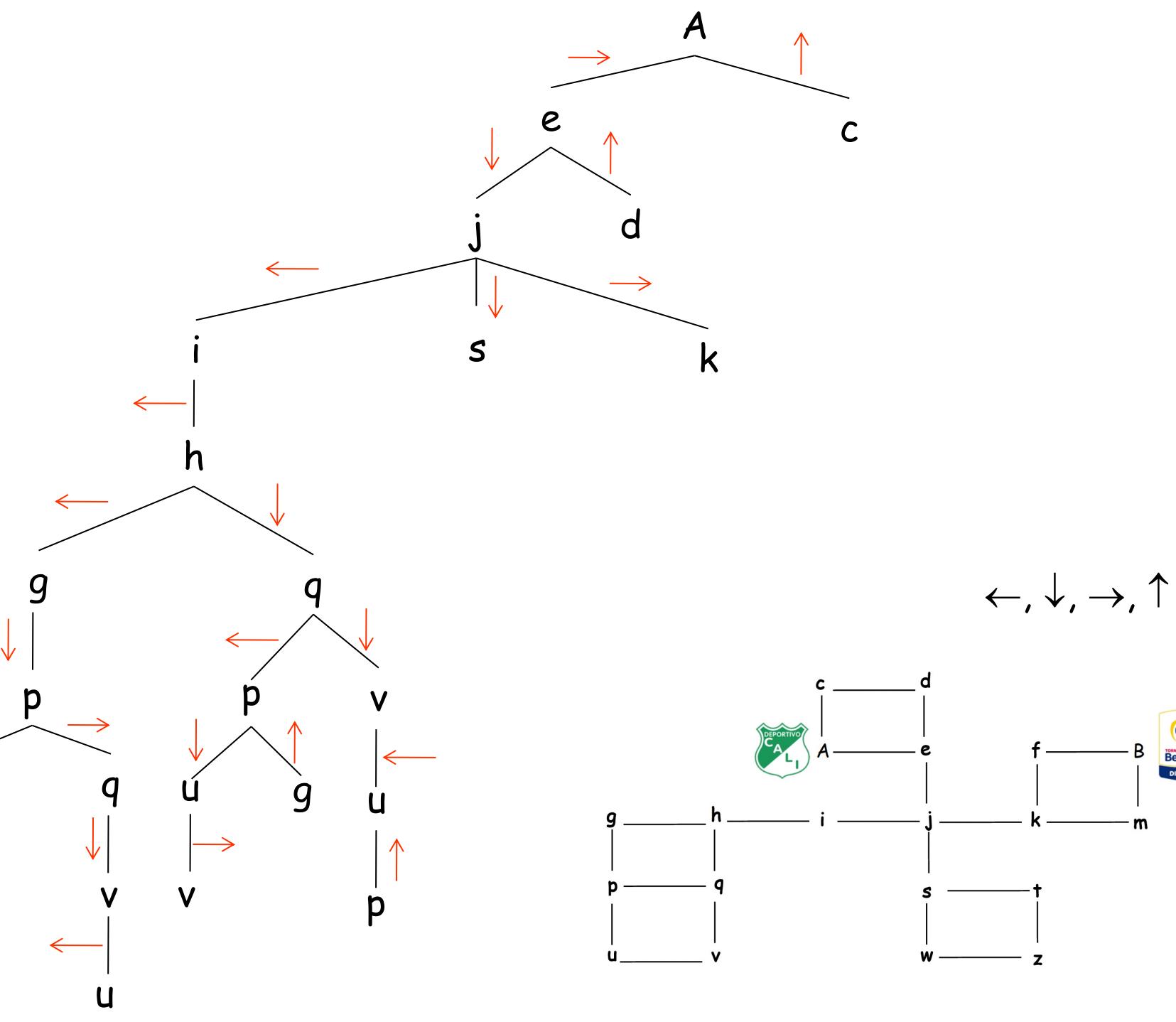










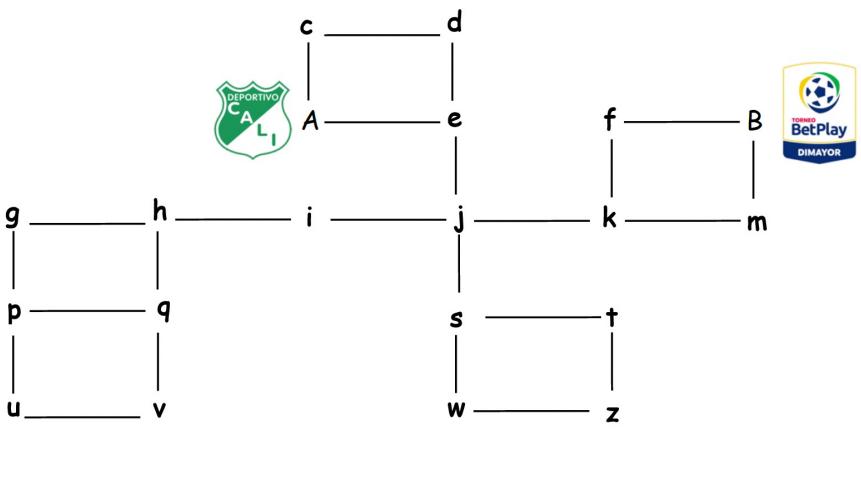
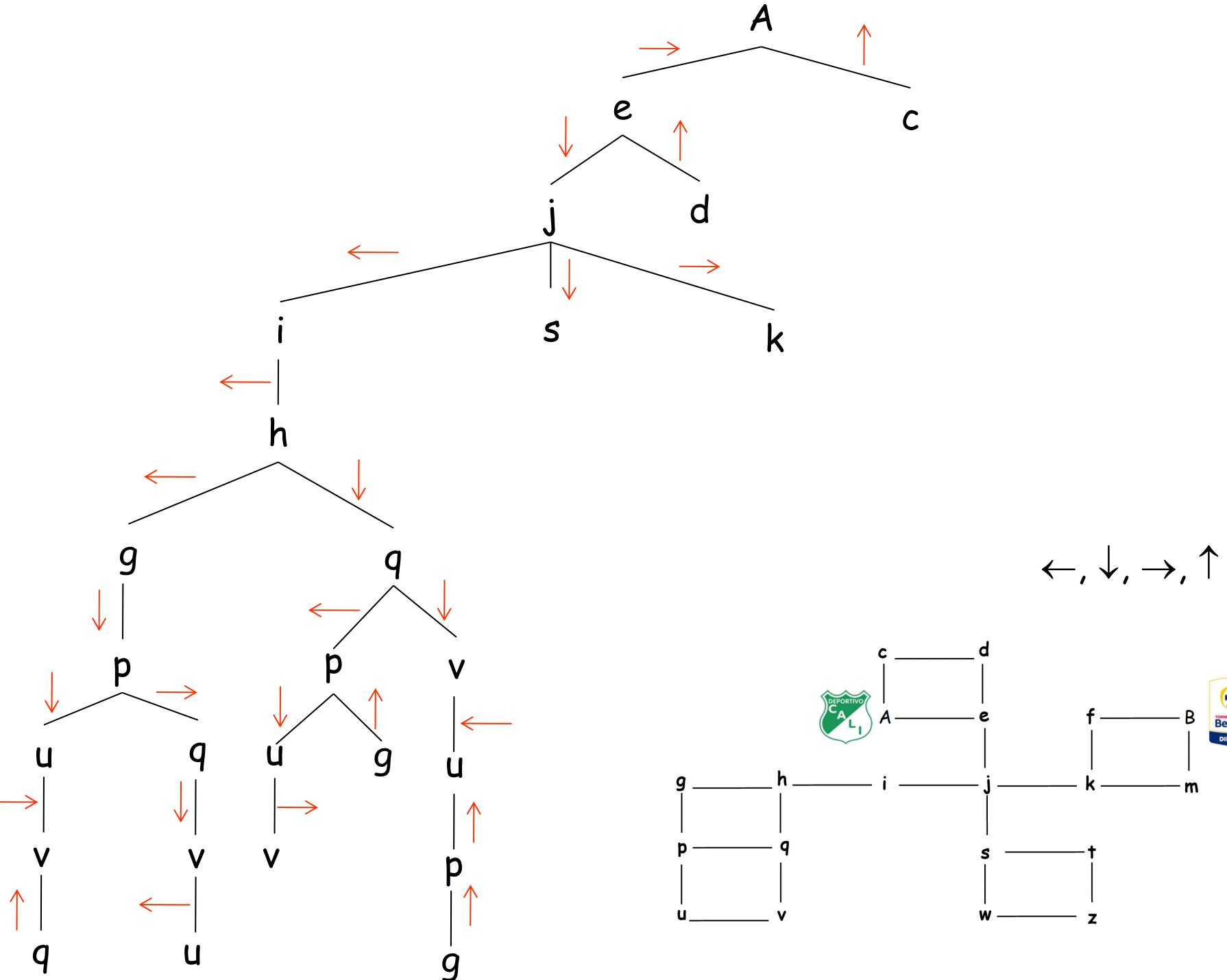


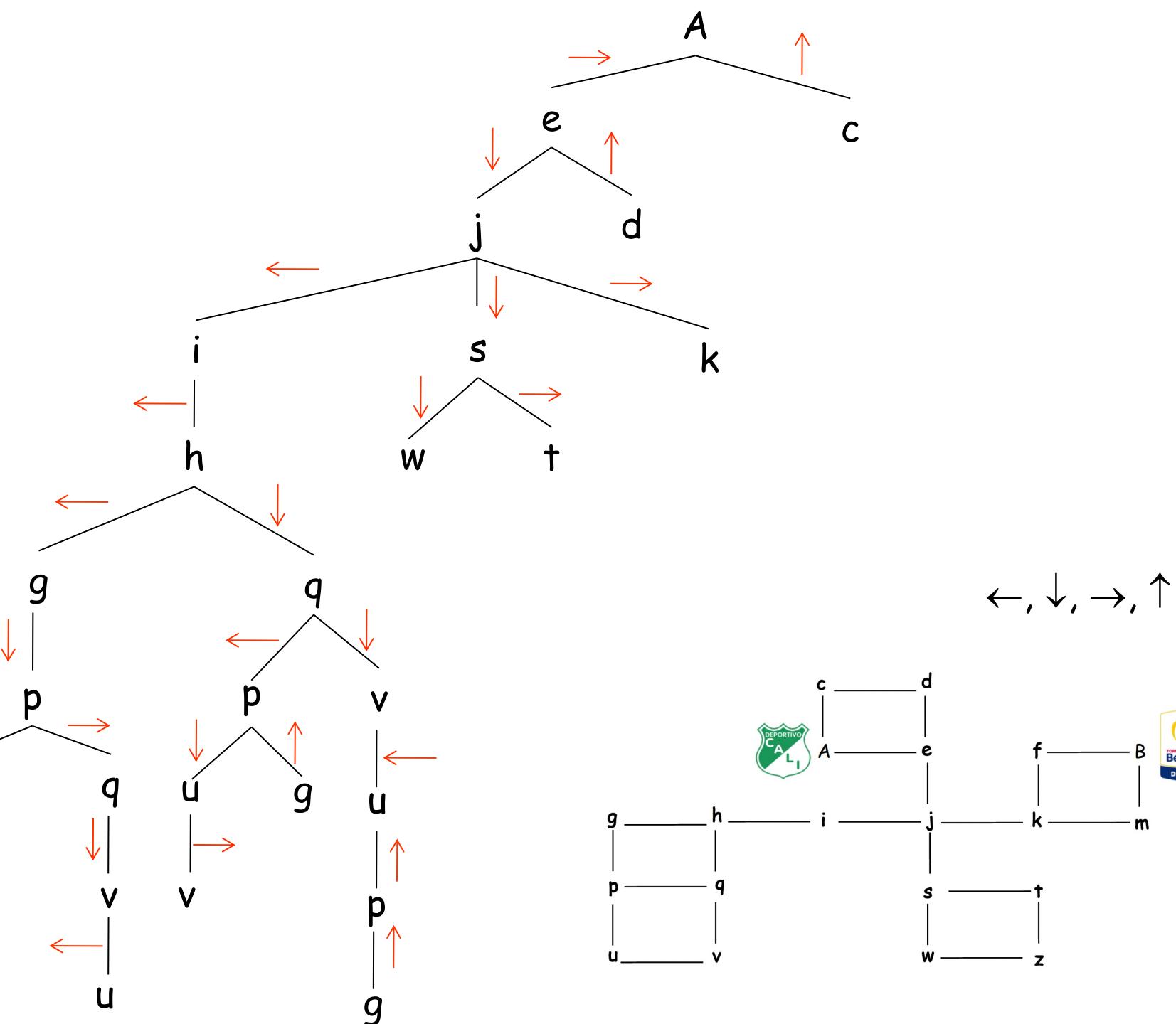
The diagram consists of a grid of letters from A to Z. The letters are arranged in seven rows:

- Row 1: c, d
- Row 2: A, e, f
- Row 3: g, h, i, j, k
- Row 4: p, q
- Row 5: u, v
- Row 6: s, t
- Row 7: w, z

A green shield logo with the text "DEPORTIVO" and the letters "C", "A", "L", "I" is located above the first four columns of the grid.





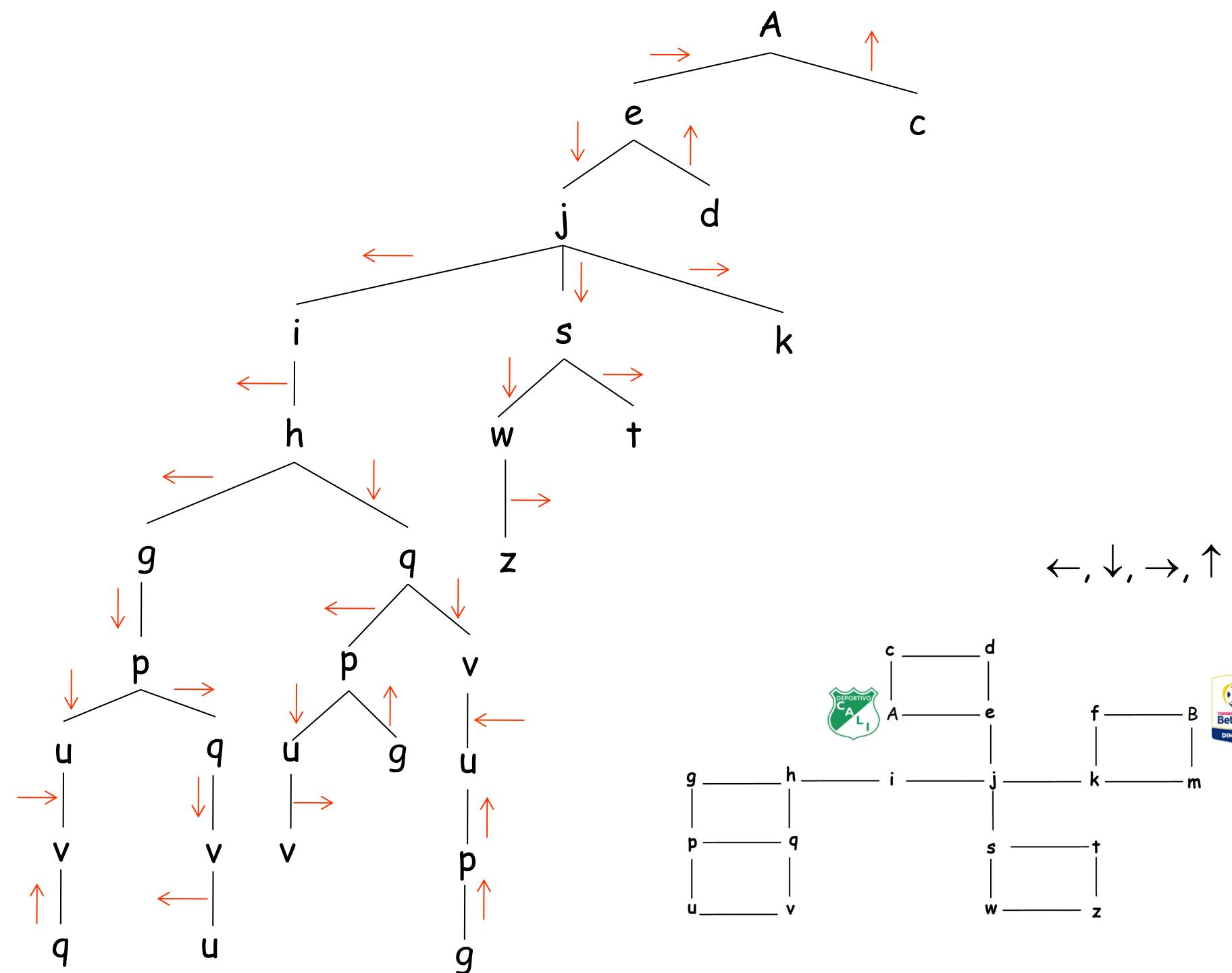


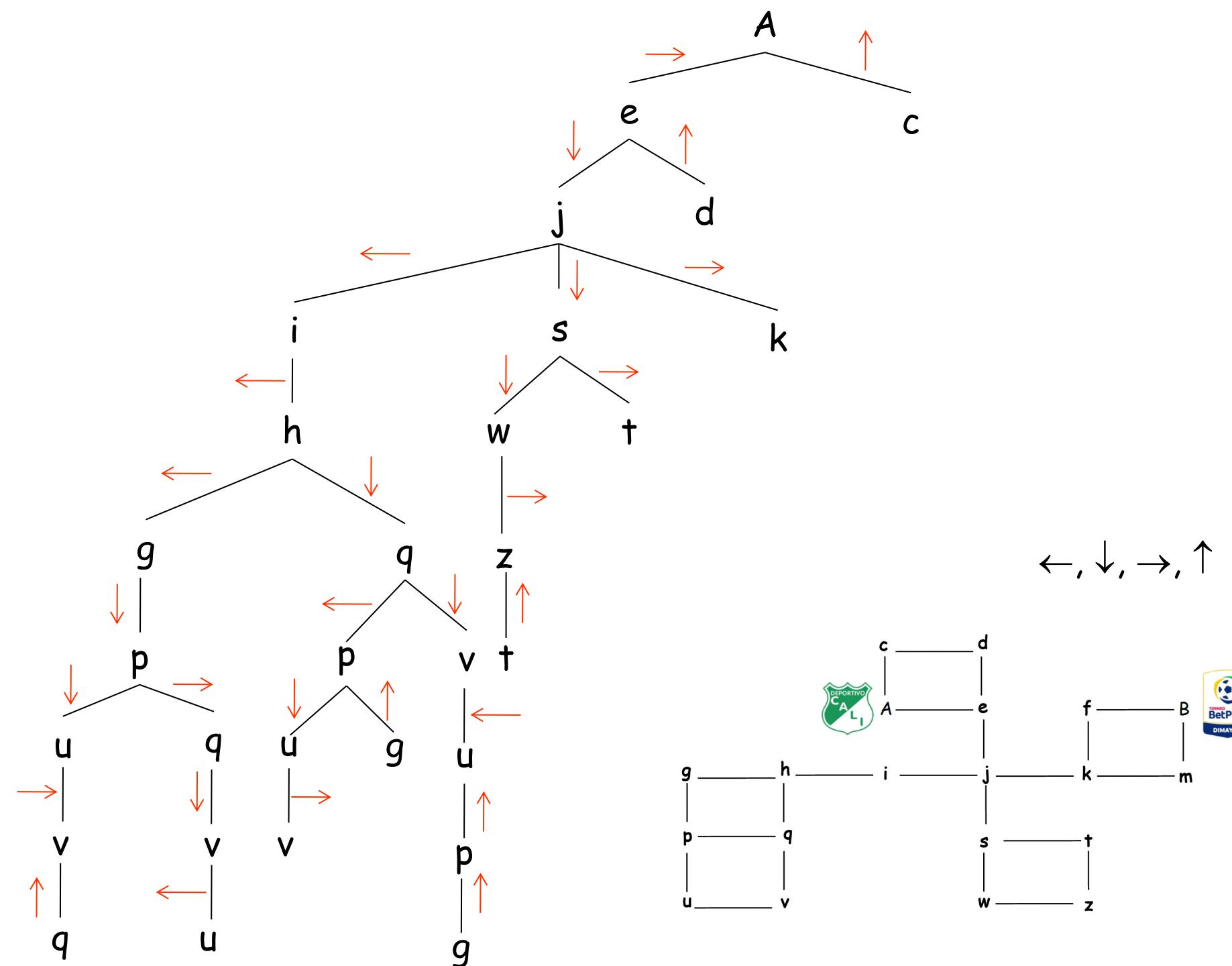
A diagram showing a 3x3 grid of letters for a word search puzzle. The letters are arranged as follows:

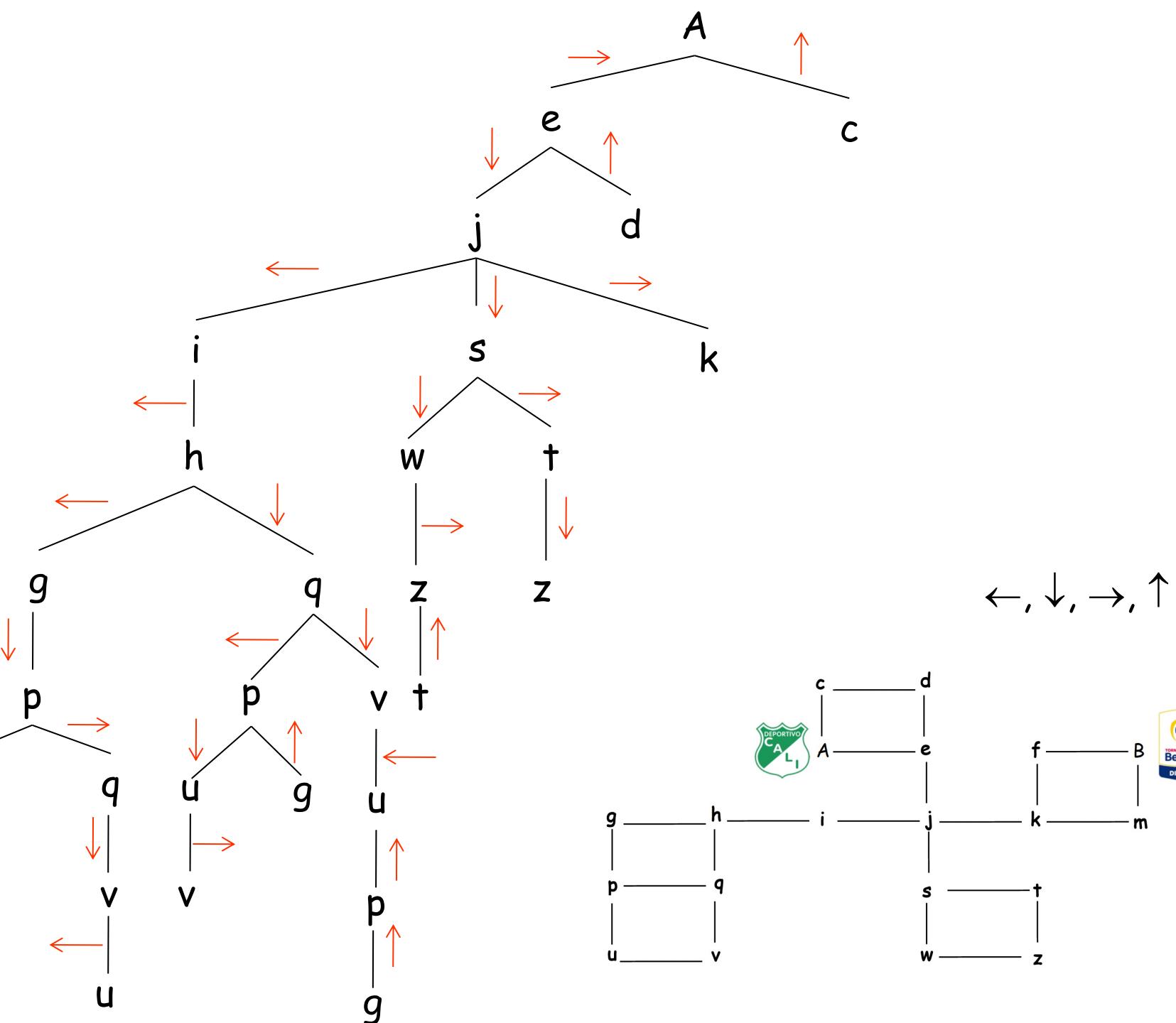
	c	d
	A	e
g	h	i
p	q	j
		k
s		t

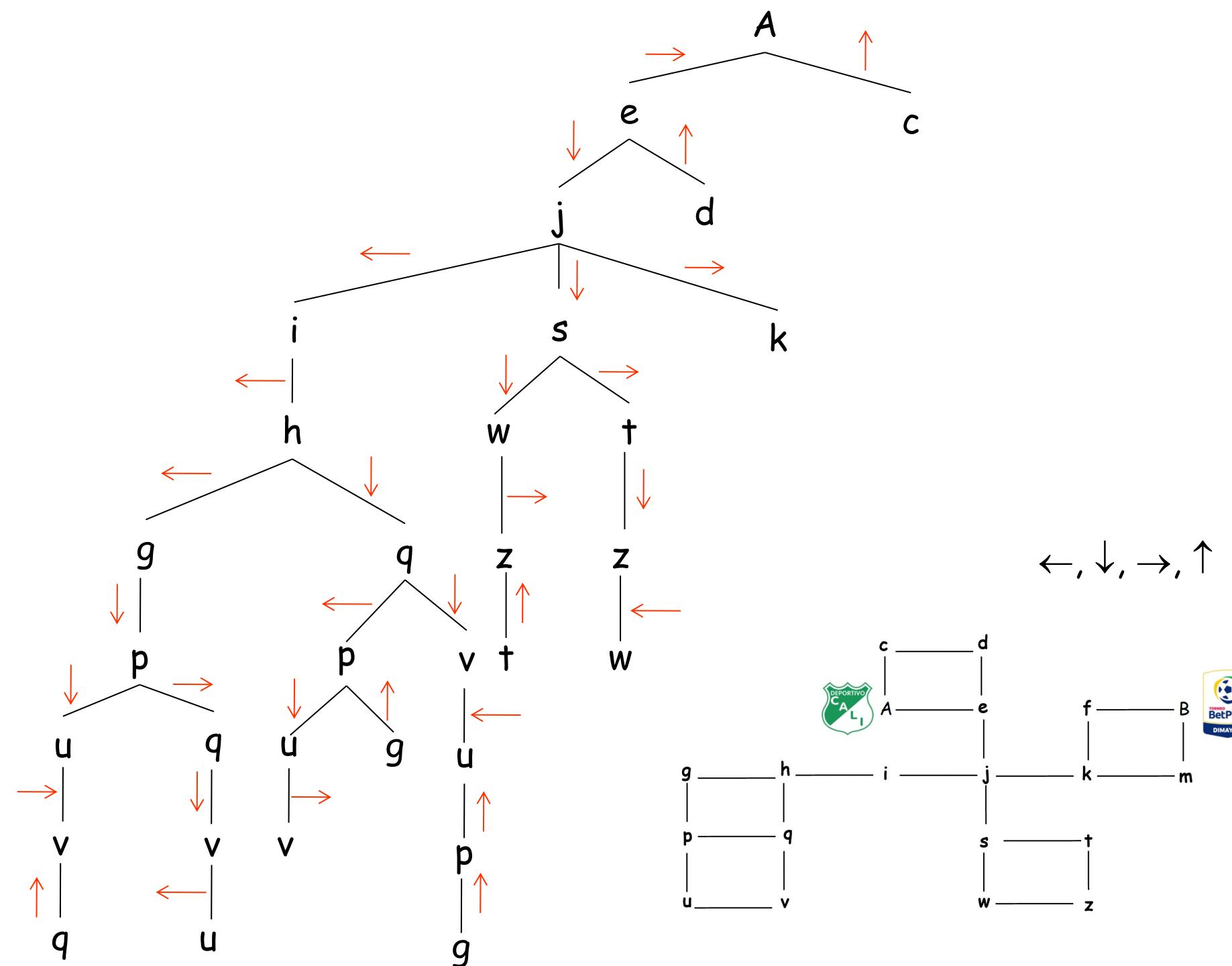
In the center of the grid is a green shield-shaped logo containing the text "DEPORTIVO" at the top and "C A L I" below it.

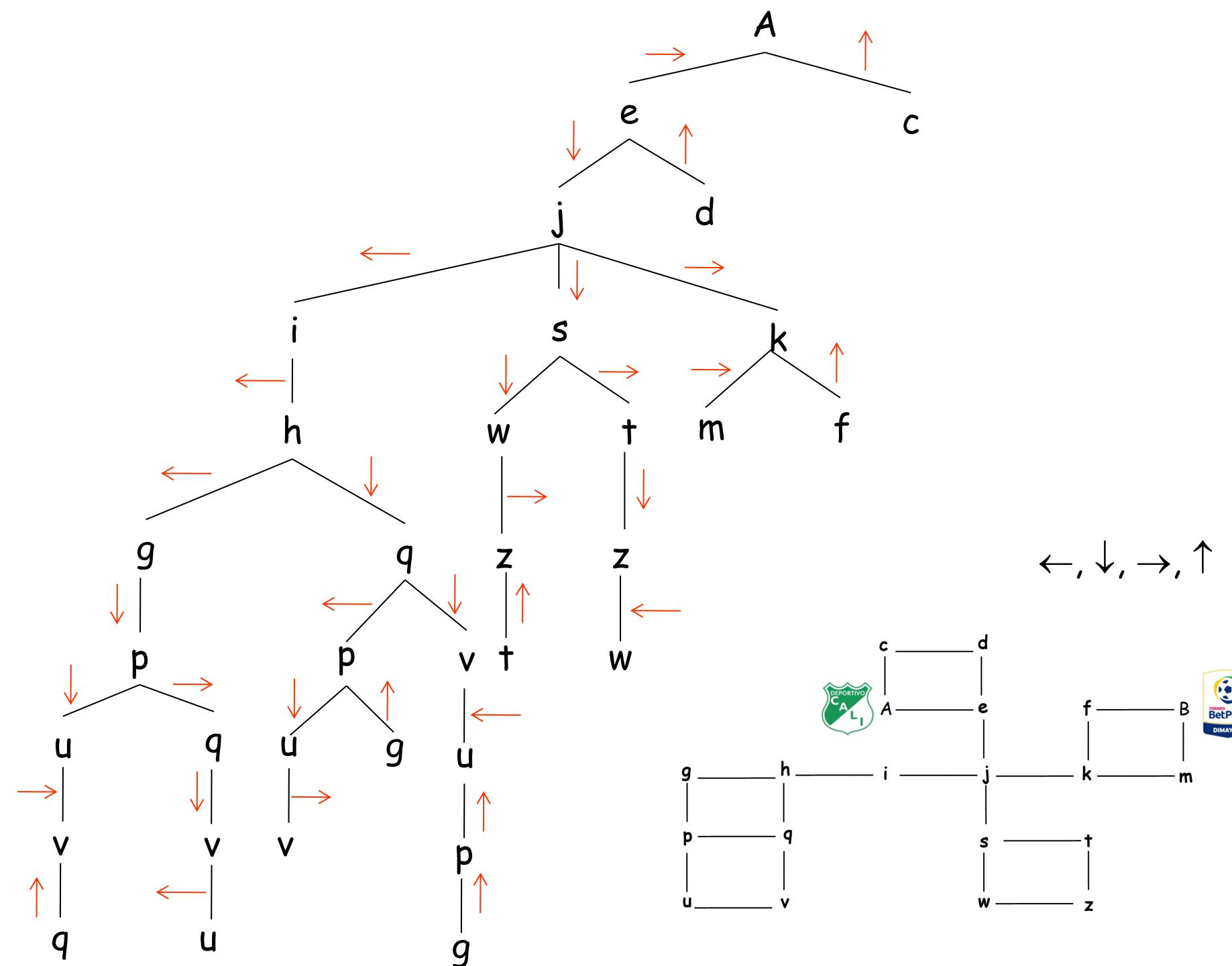


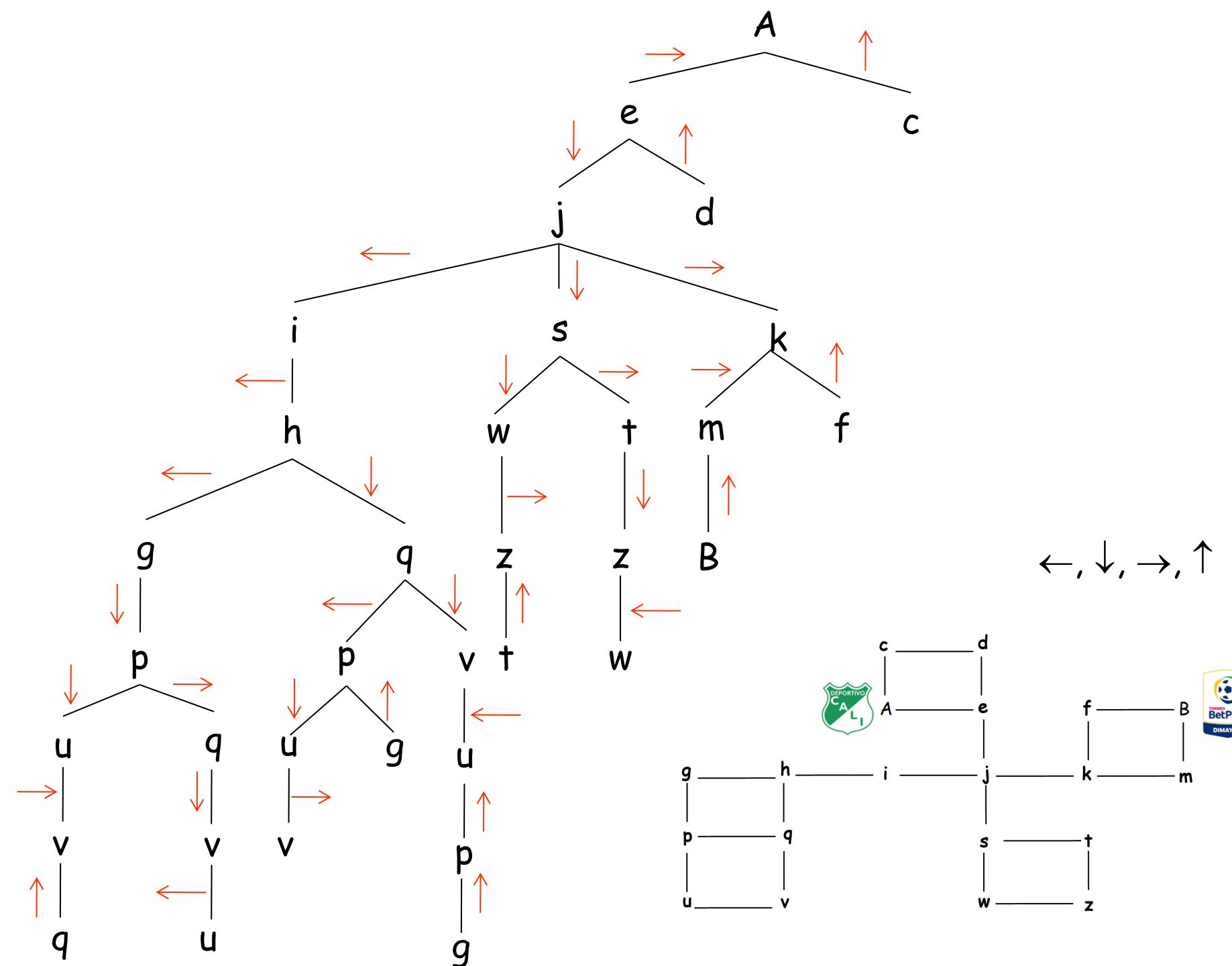


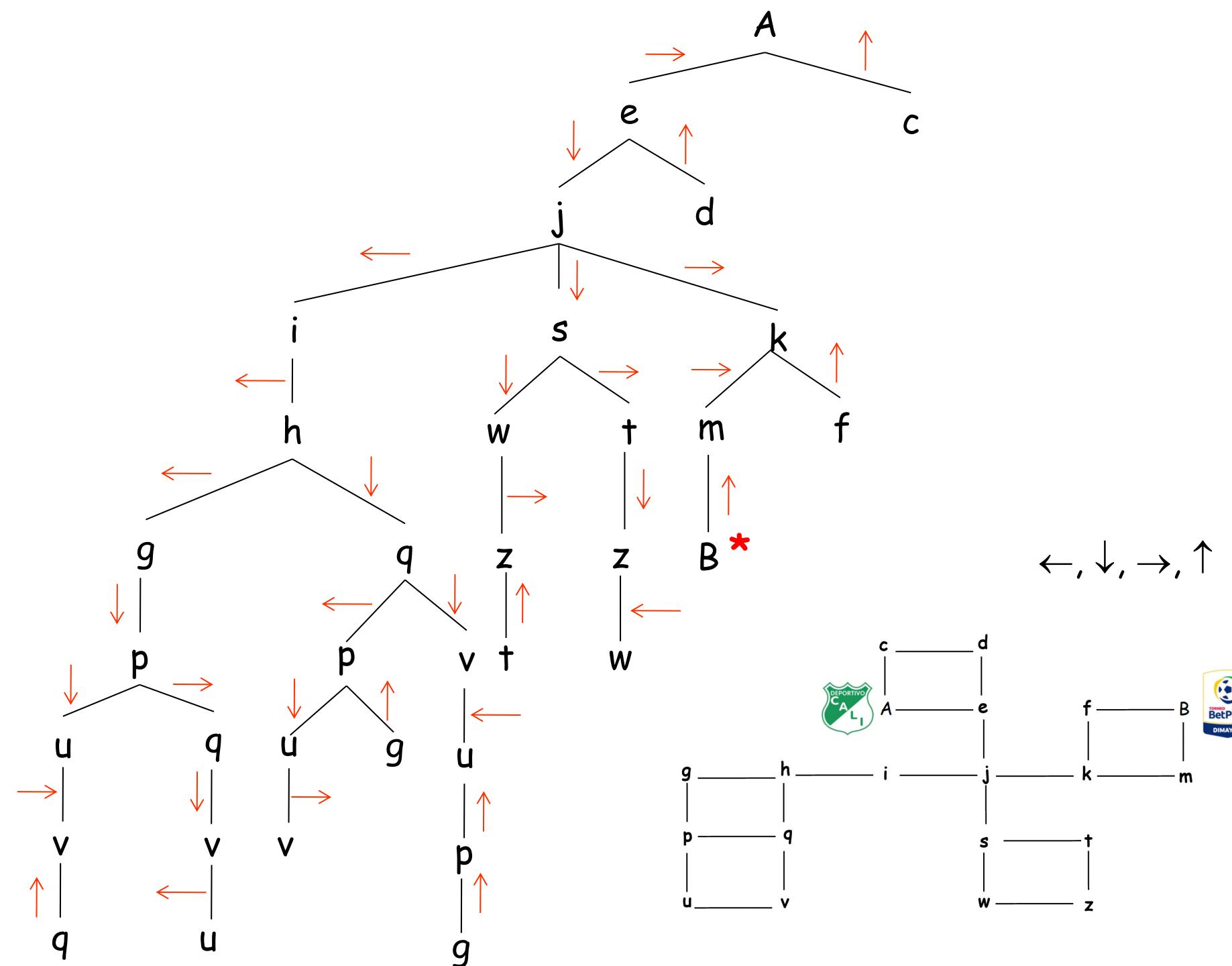




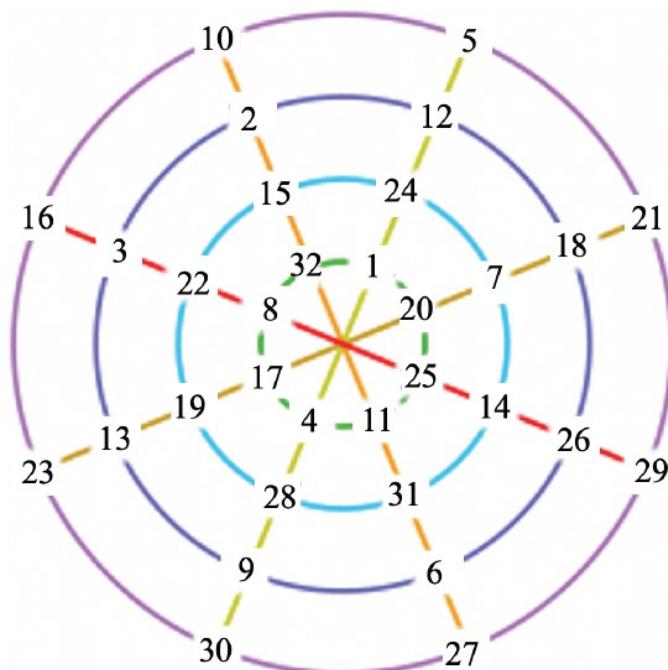




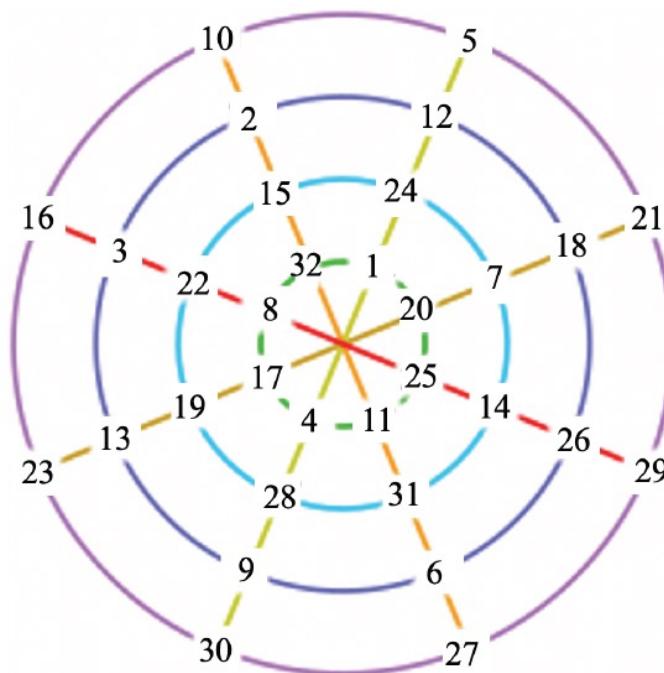




3. [I.L 1.5 (6pts)] **Heurísticas**. Se tiene la siguiente figura con los números del 1 al 32 y se deben ubicar de tal forma que la suma sobre cada uno de los cuatro círculos y los cuatro diámetros sea 132. Cada círculo y cada diámetro está formado por ocho números. Se utiliza un solo operador de costo 1, llamado **intercambio**(a,b), que permite cambiar los números a y b. Defina la heurística admisible más dominante posible para este problema.



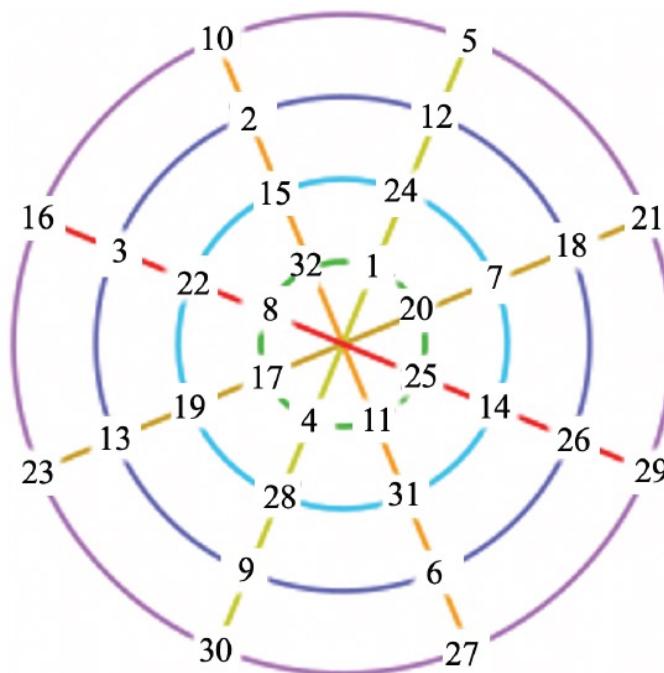
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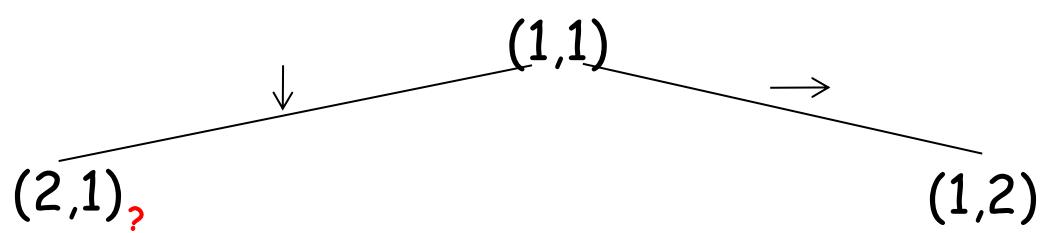
$$h(n) = \underline{\text{cantidad de círculos y diámetros que no suman } 132}$$

?

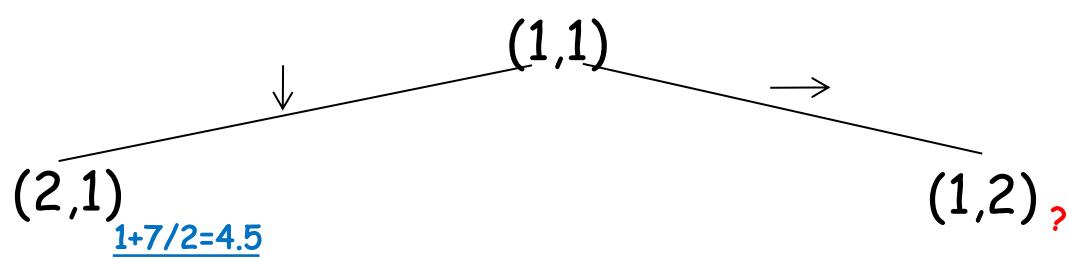
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$$h(n) = \underline{\text{cantidad de círculos y diámetros que no suman 132}}$$

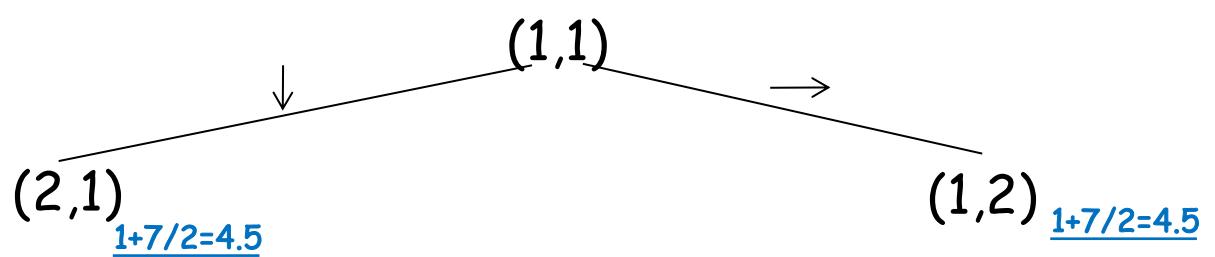


	1	2	3	4	5	6
1						
2						
3						
4						Fin



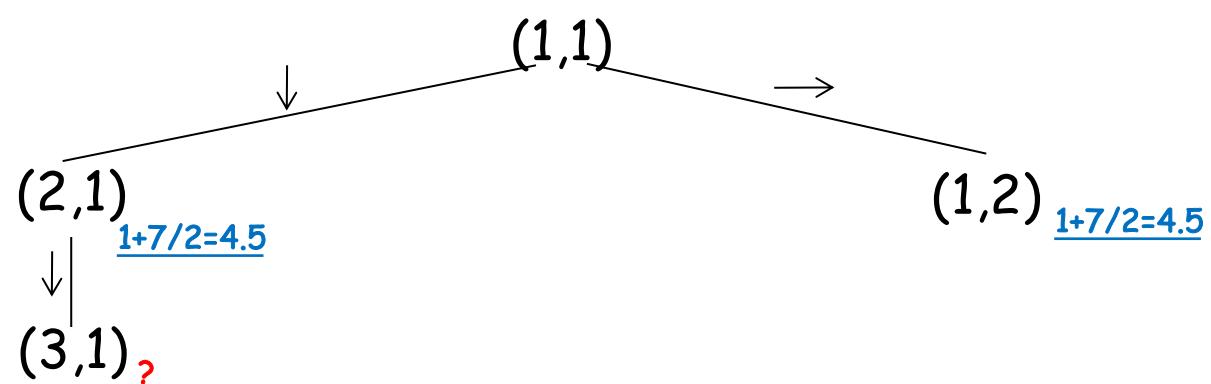
	1	2	3	4	5	6
1						
2						
3						
4						Fin

$\downarrow, \rightarrow, \uparrow, \leftarrow$



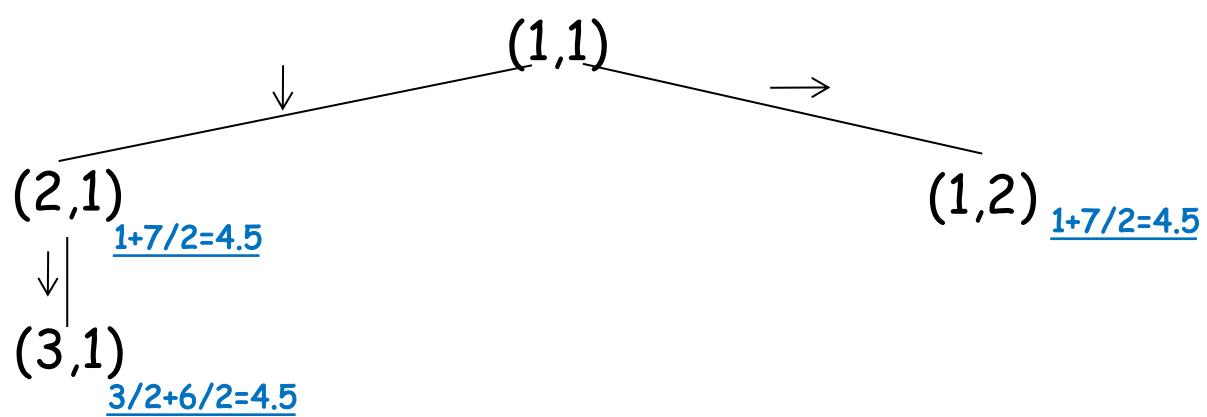
	1	2	3	4	5	6
1						
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4						Fin

$\downarrow, \rightarrow, \uparrow, \leftarrow$



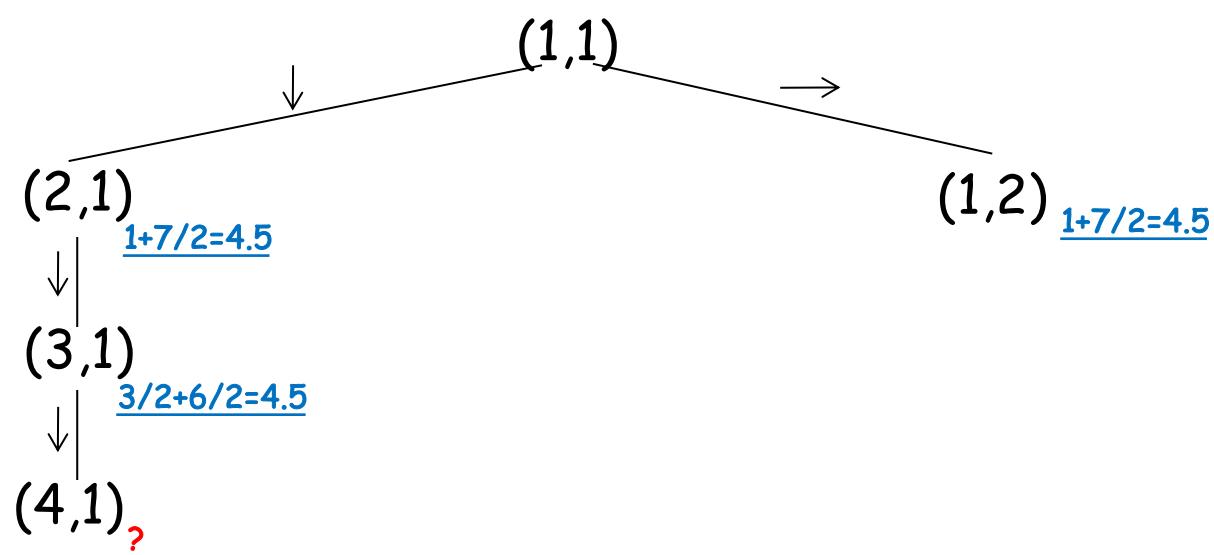
	1	2	3	4	5	6
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4						Fin

$\downarrow, \rightarrow, \uparrow, \leftarrow$



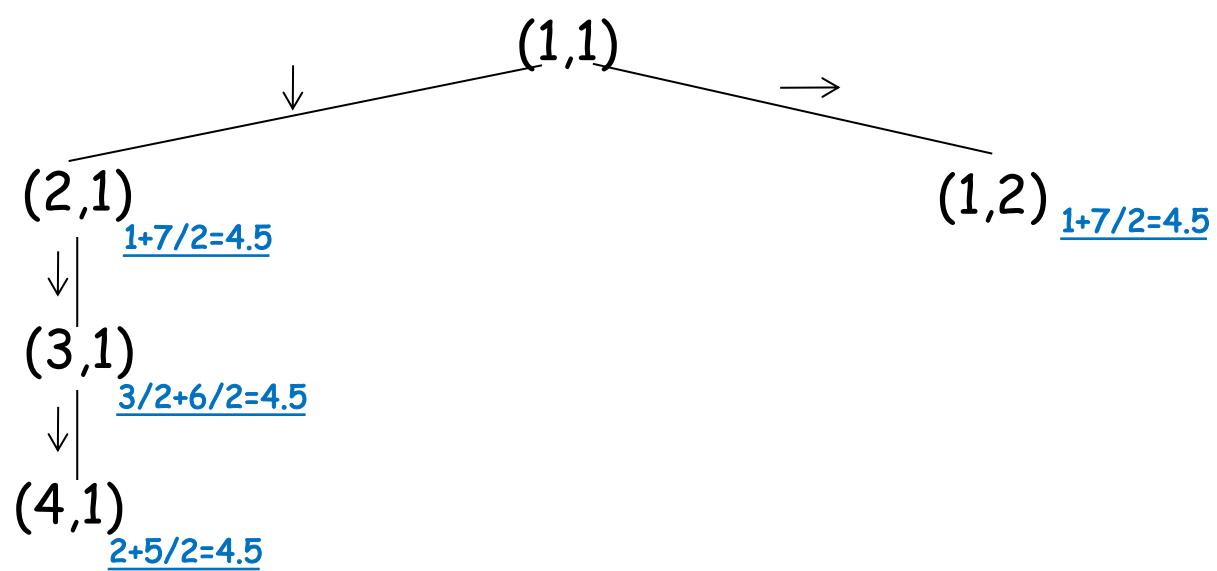
	1	2	3	4	5	6
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4						Fin

$\downarrow, \rightarrow, \uparrow, \leftarrow.$



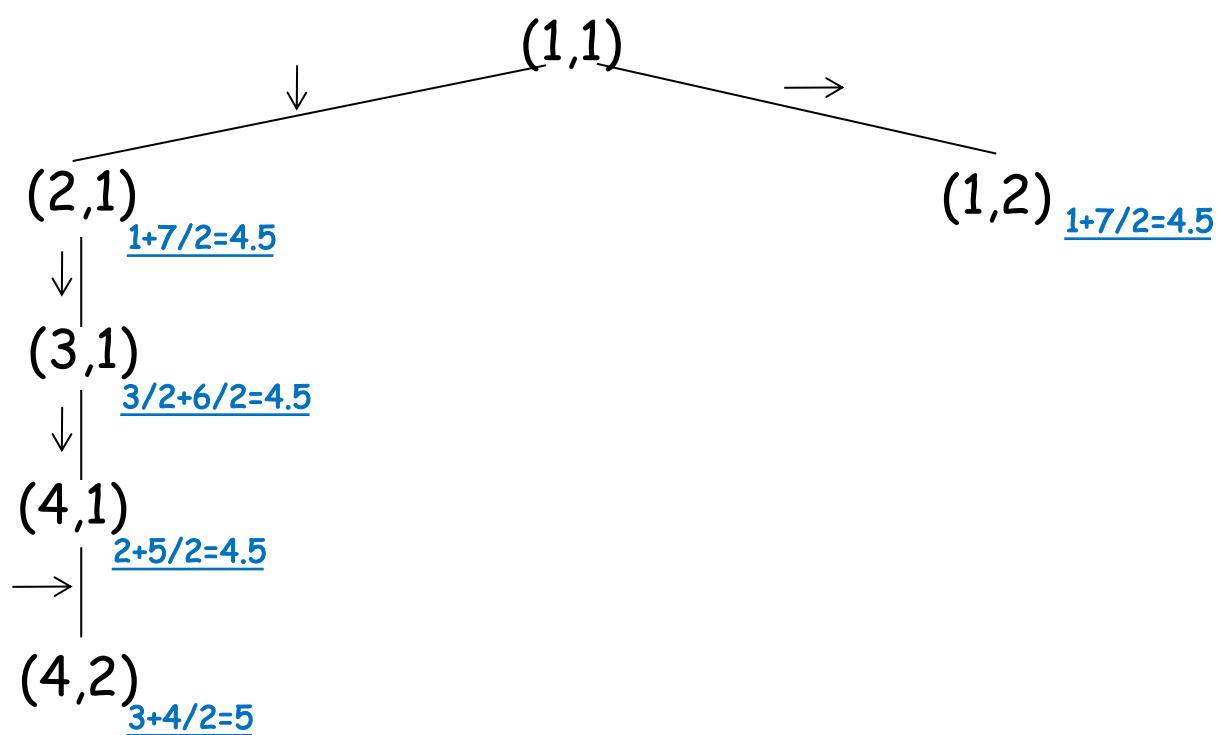
	1	2	3	4	5	6
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4						Fin

$\downarrow, \rightarrow, \uparrow, \leftarrow$



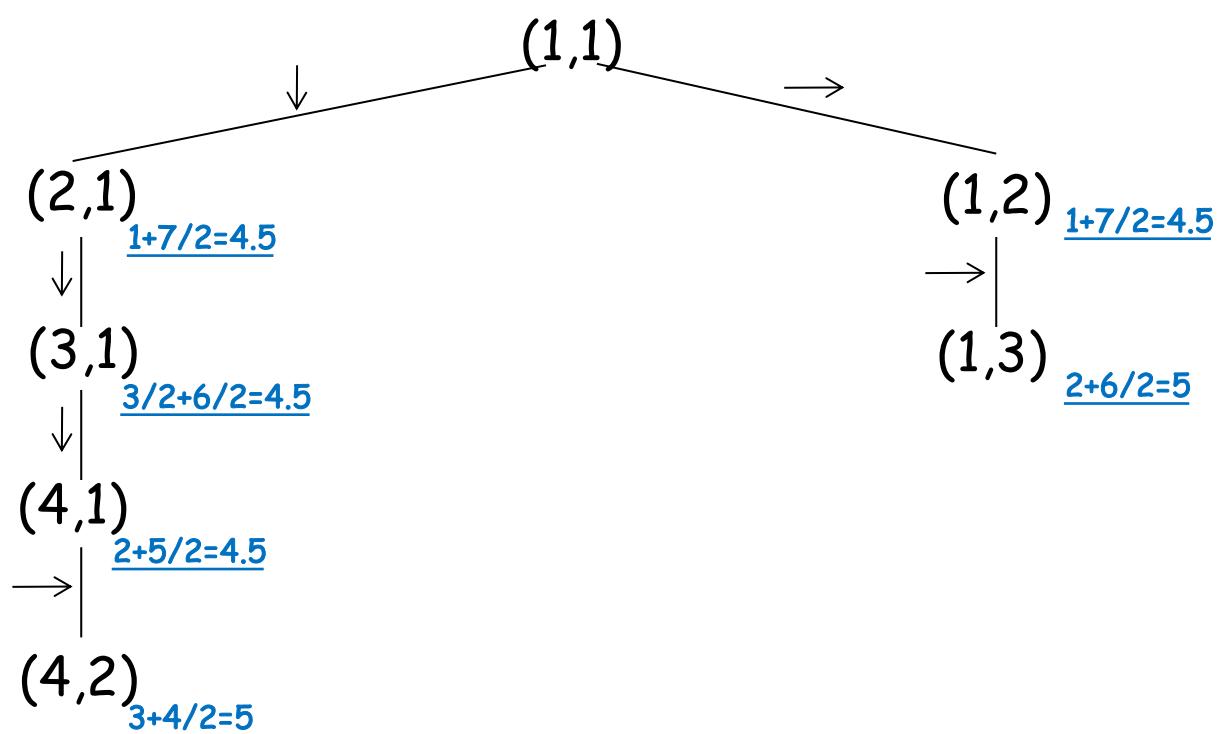
	1	2	3	4	5	6
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4						Fin

$\downarrow, \rightarrow, \uparrow, \leftarrow$



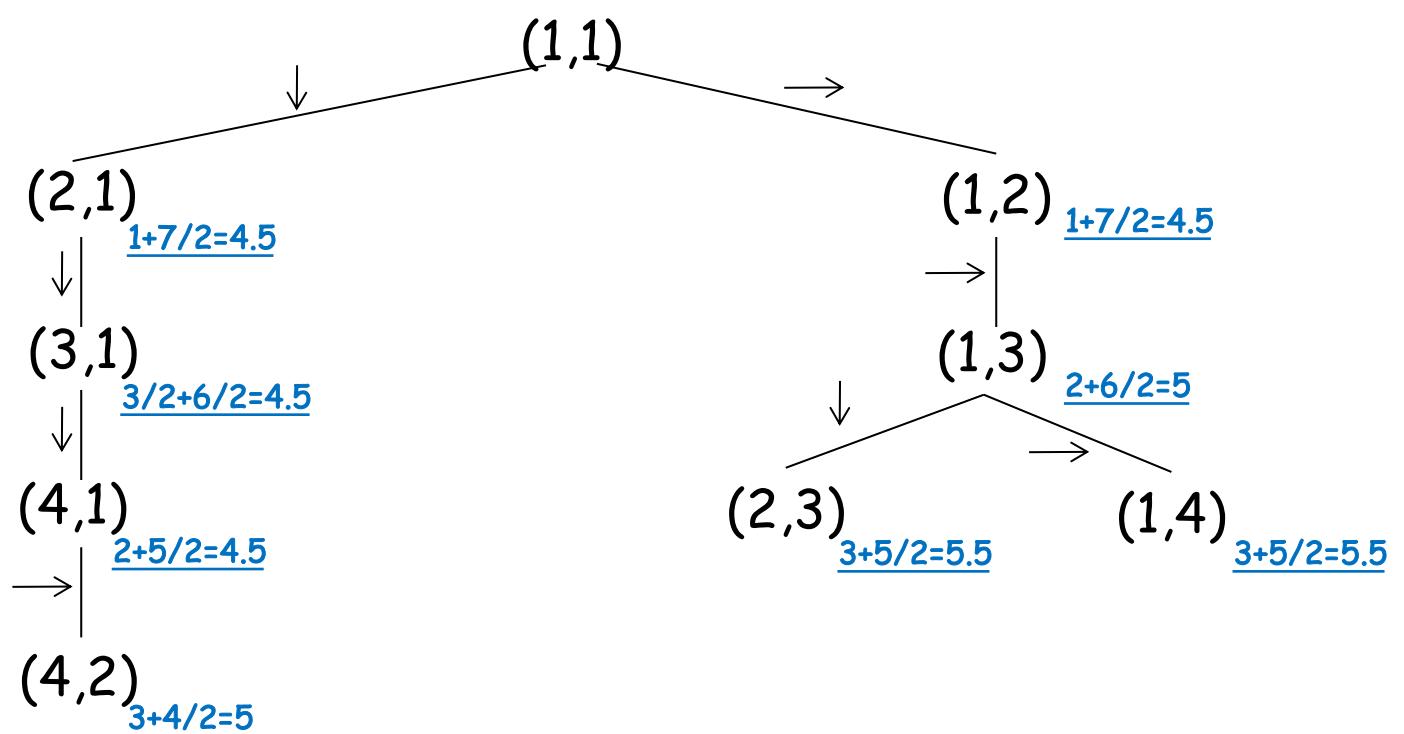
	1	2	3	4	5	6
1						
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4						Fin

$\downarrow, \rightarrow, \uparrow, \leftarrow$



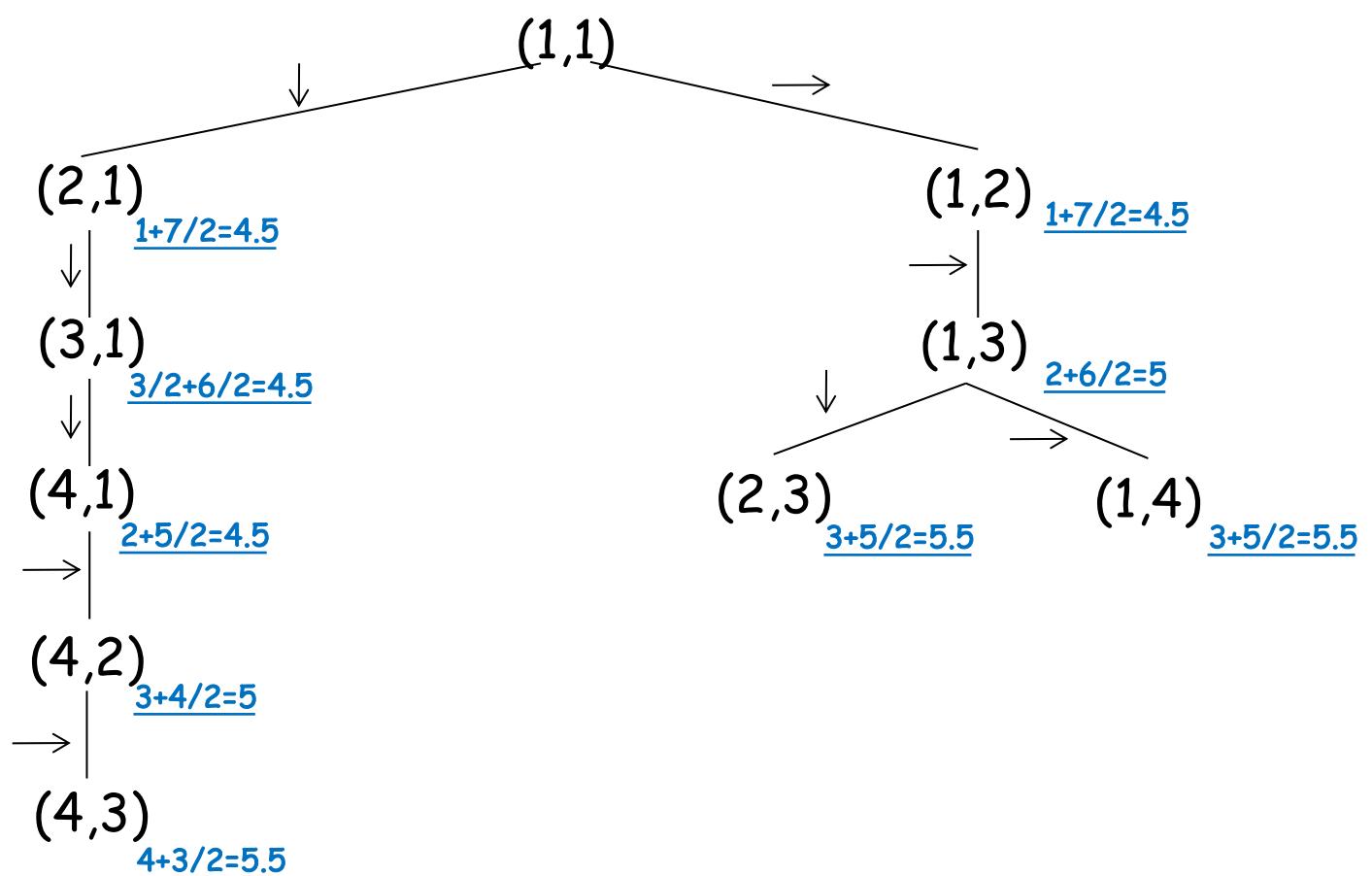
	1	2	3	4	5	6
1						
2						
3						
4						Fin

$\downarrow, \rightarrow, \uparrow, \leftarrow$



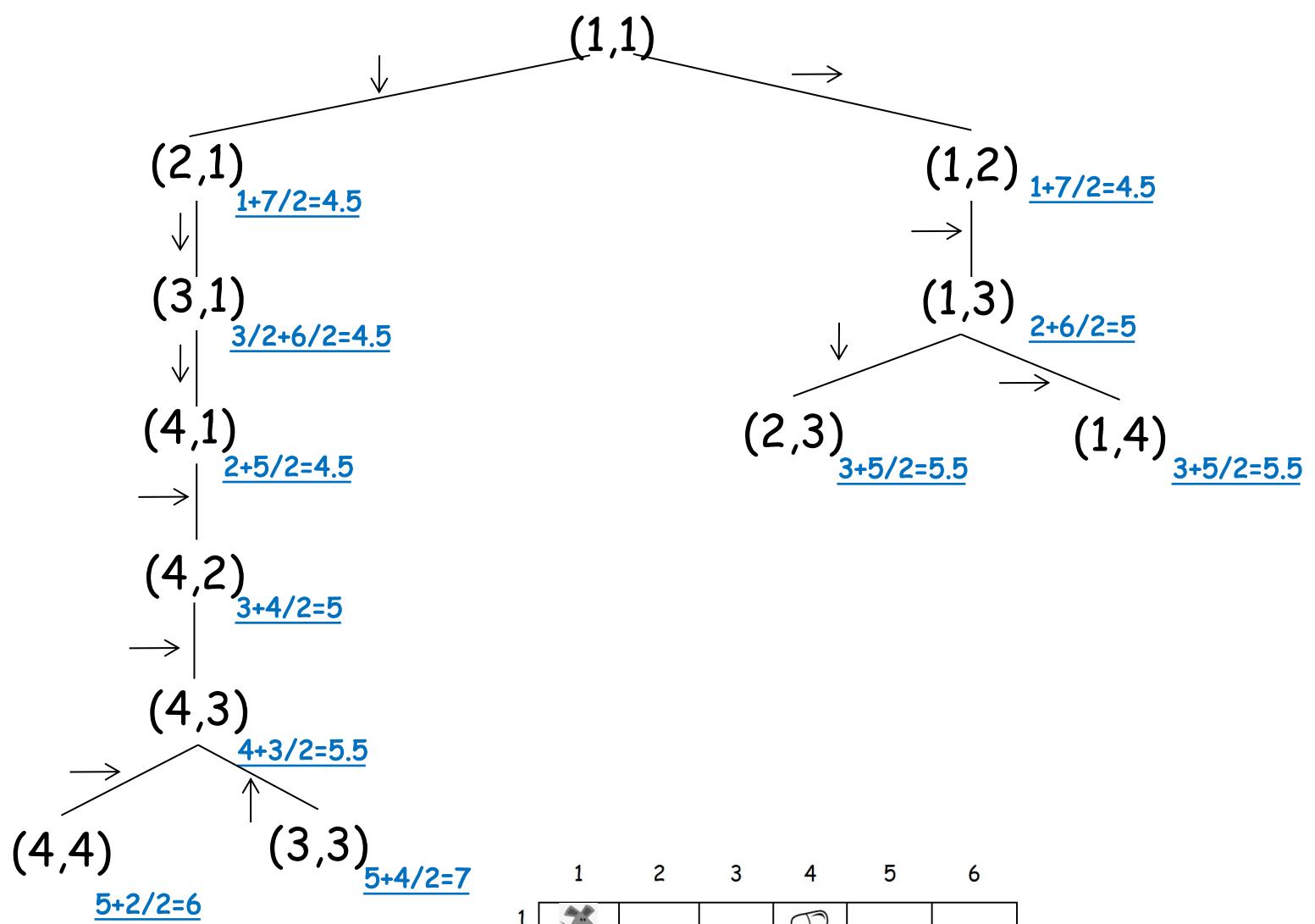
	1	2	3	4	5	6
1						
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4						Fin

$\downarrow, \rightarrow, \uparrow, \leftarrow$



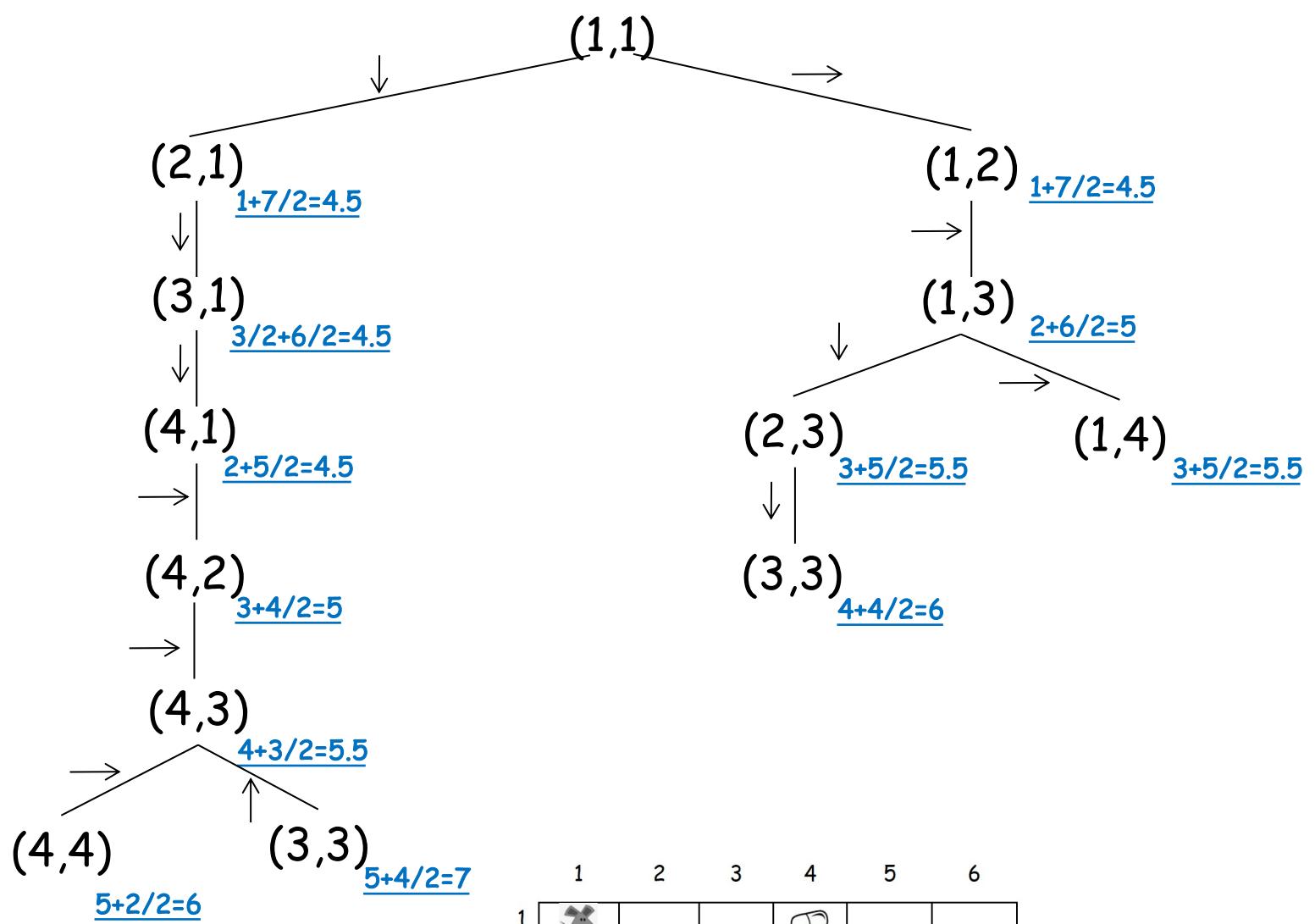
	1	2	3	4	5	6
1						
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3						
4						Fin

$\downarrow, \rightarrow, \uparrow, \leftarrow$



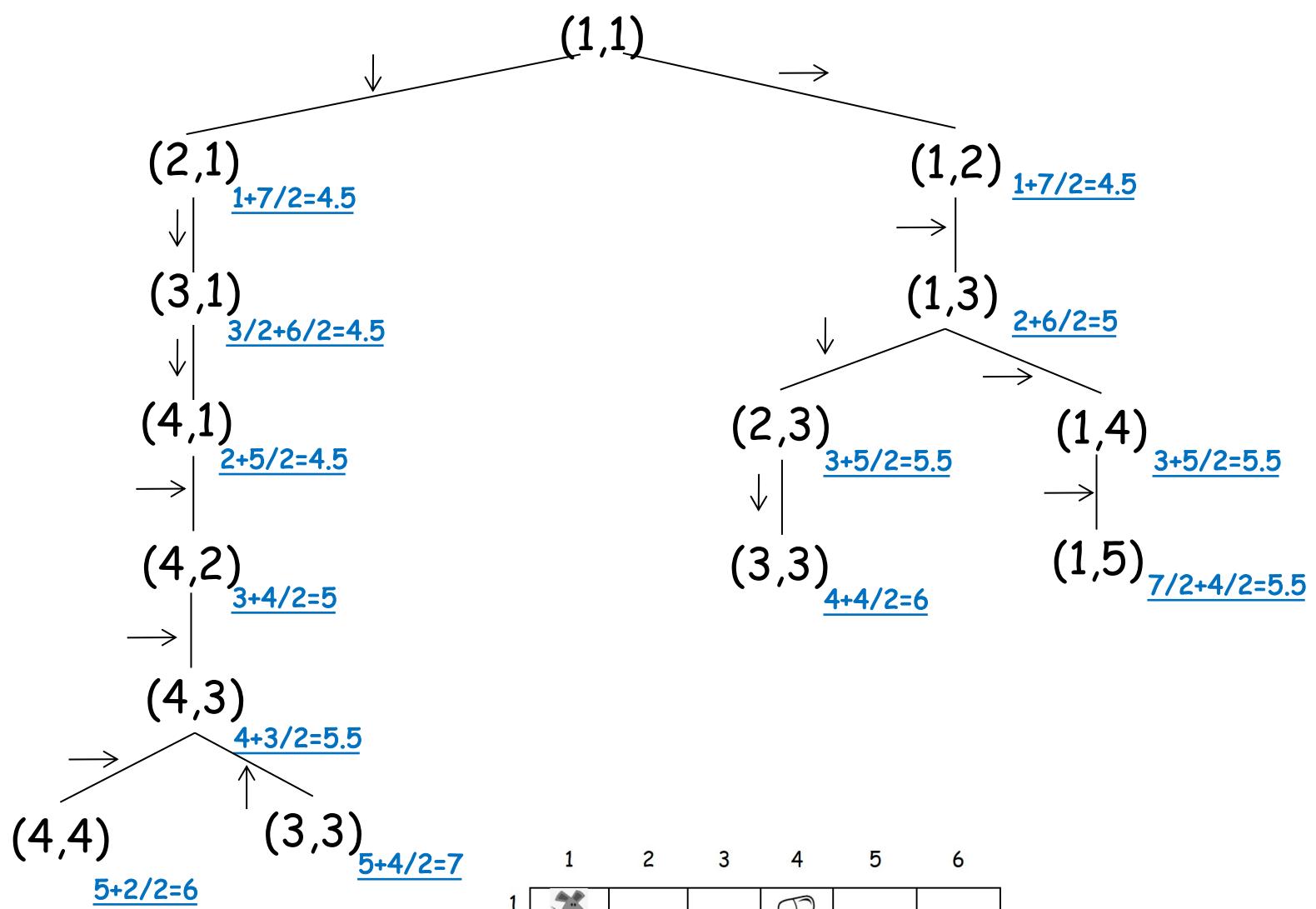
	1	2	3	4	5	6
1						
2						
3						
4						Fin

$\downarrow, \rightarrow, \uparrow, \leftarrow$



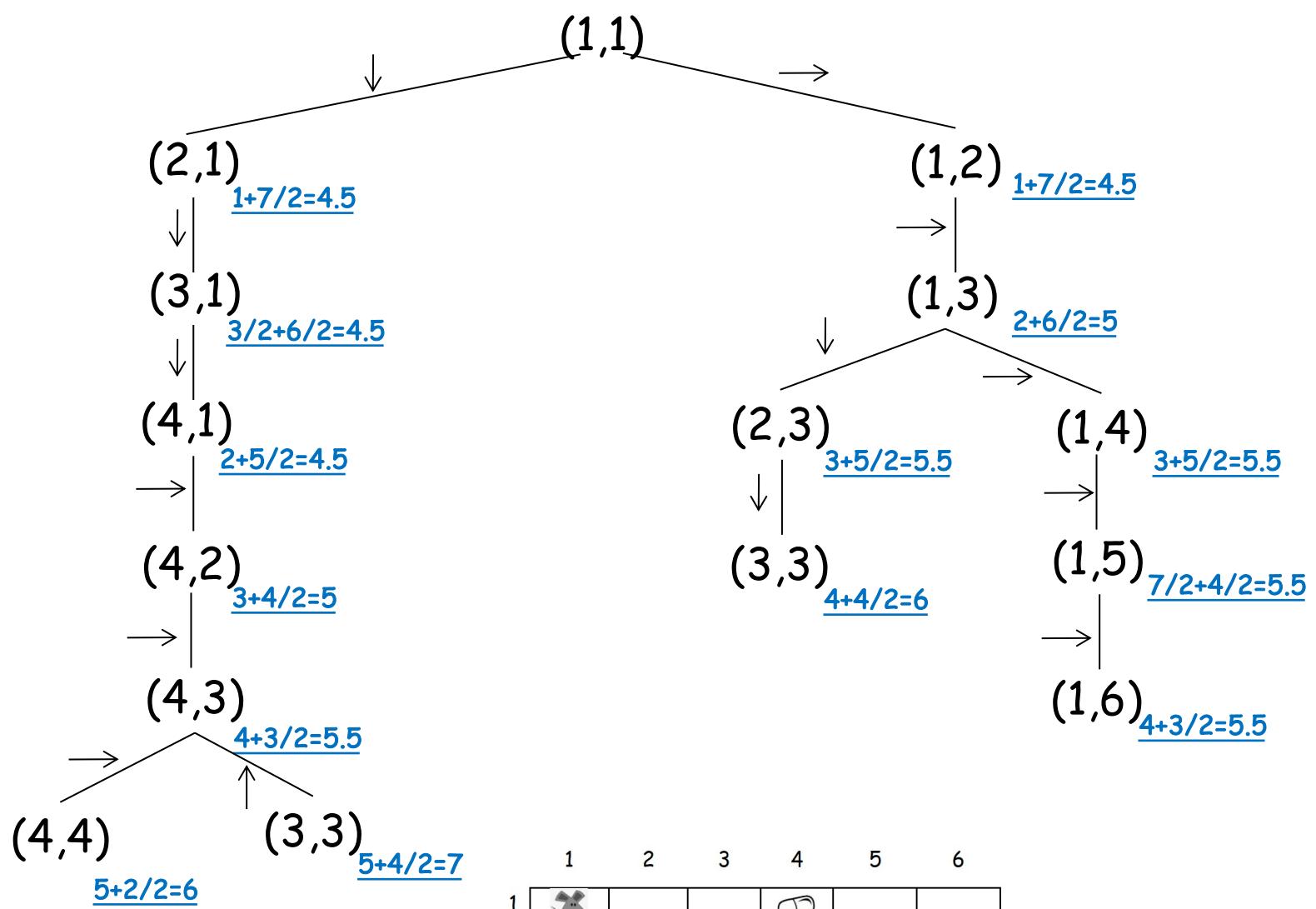
	1	2	3	4	5	6
1	Mouse			Clip		
2	Clip					Clip
3		Clip		Clip		
4						Fin

$\downarrow, \rightarrow, \uparrow, \leftarrow$



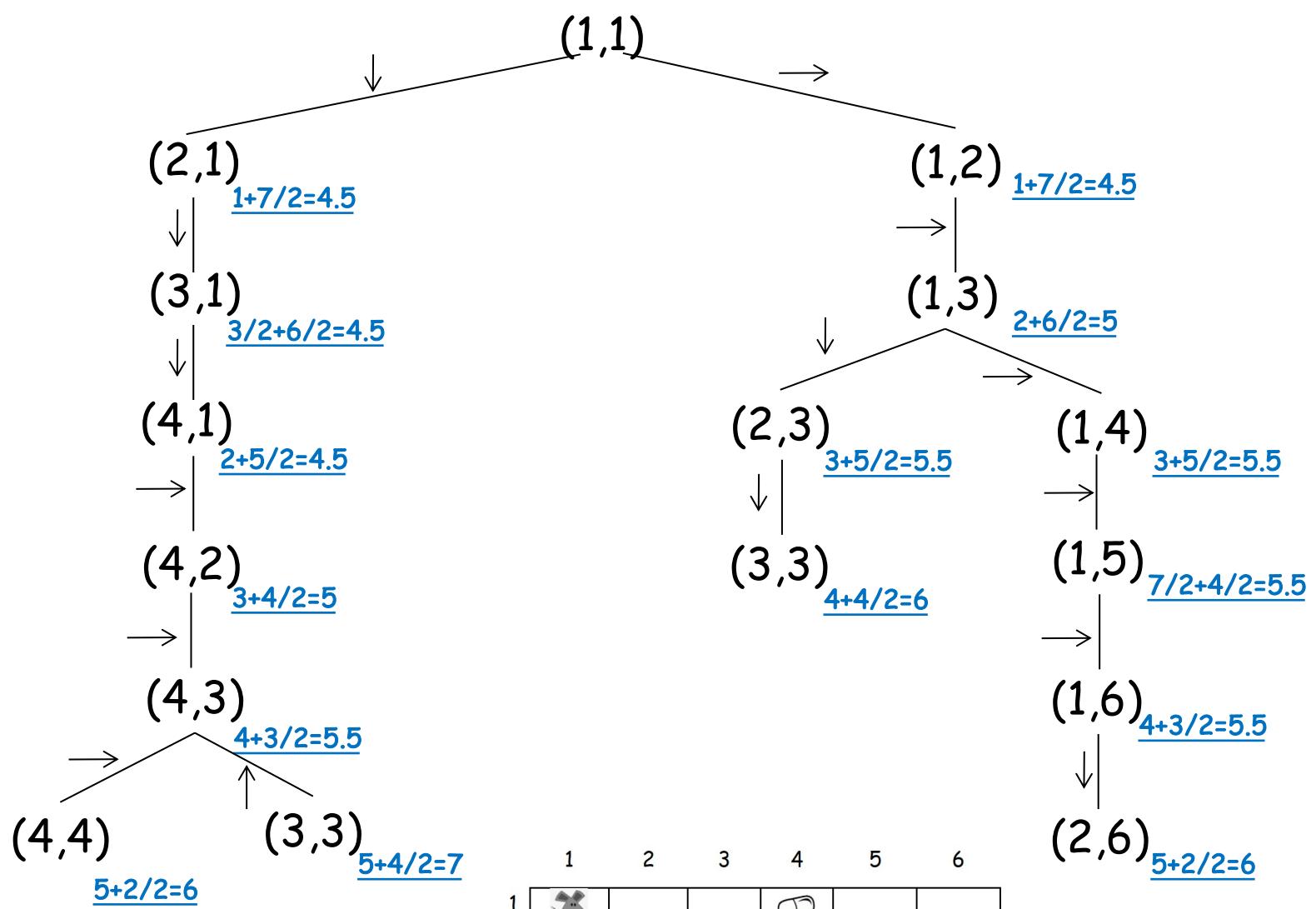
	1	2	3	4	5	6
1	Mouse			CD		
2	CD					CD
3		CD			CD	
4						Fin

$\downarrow, \rightarrow, \uparrow, \leftarrow$



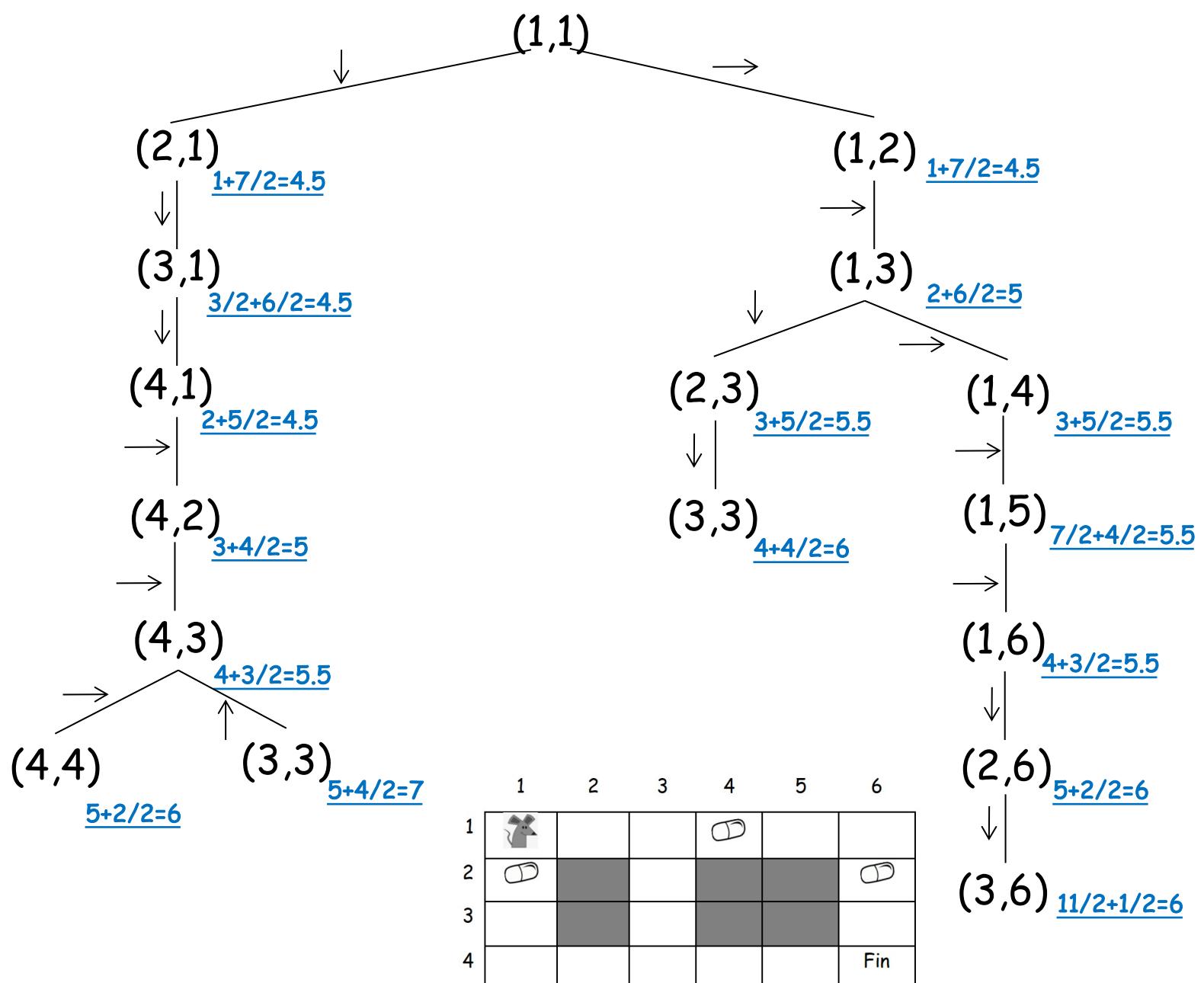
	1	2	3	4	5	6
1	Mouse			Clip		
2	Clip					Clip
3		Clip			Clip	
4			Clip			Fin

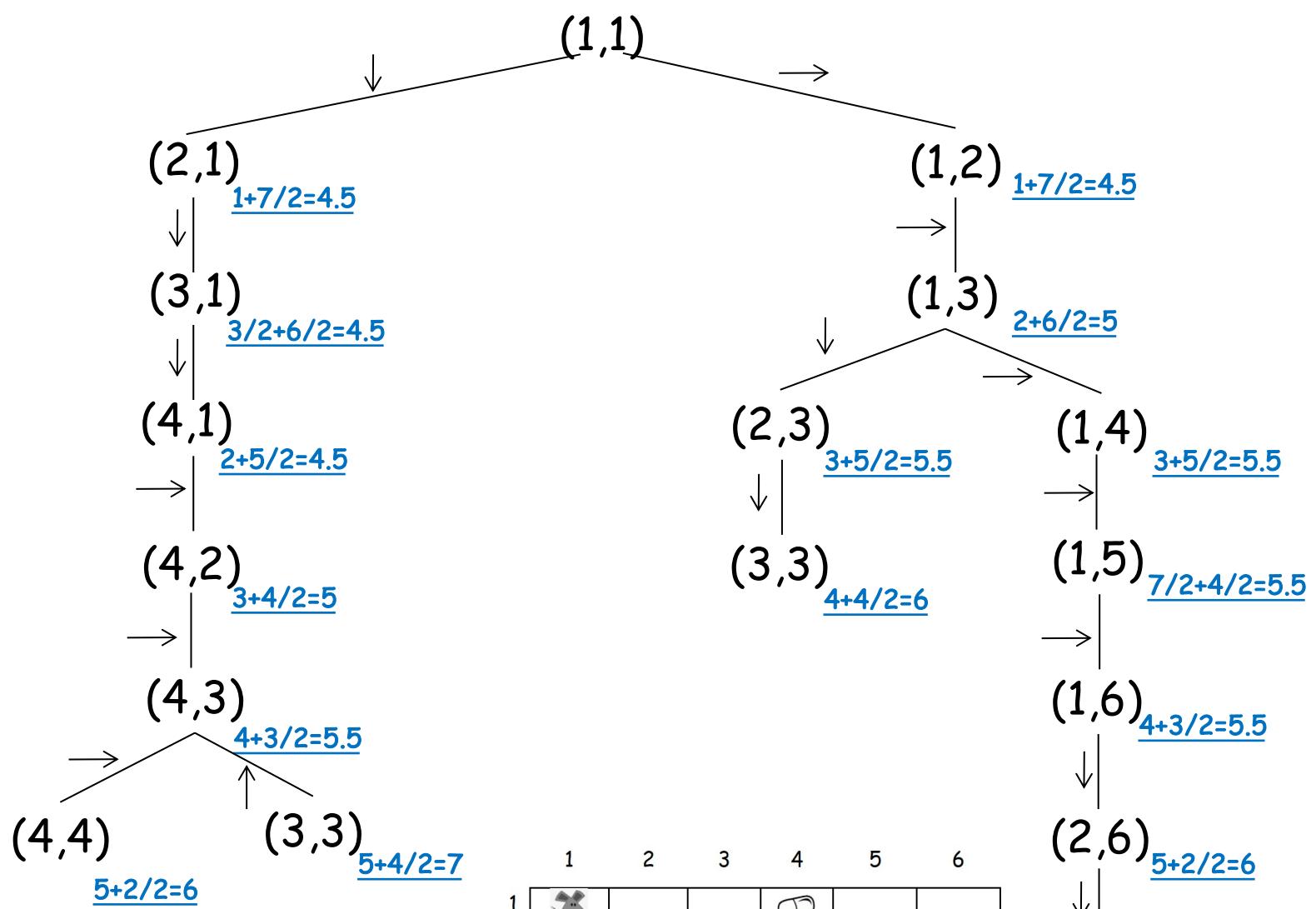
$\downarrow, \rightarrow, \uparrow, \leftarrow$



	1	2	3	4	5	6
1						
2						
3						
4						Fin

$\downarrow, \rightarrow, \uparrow, \leftarrow$





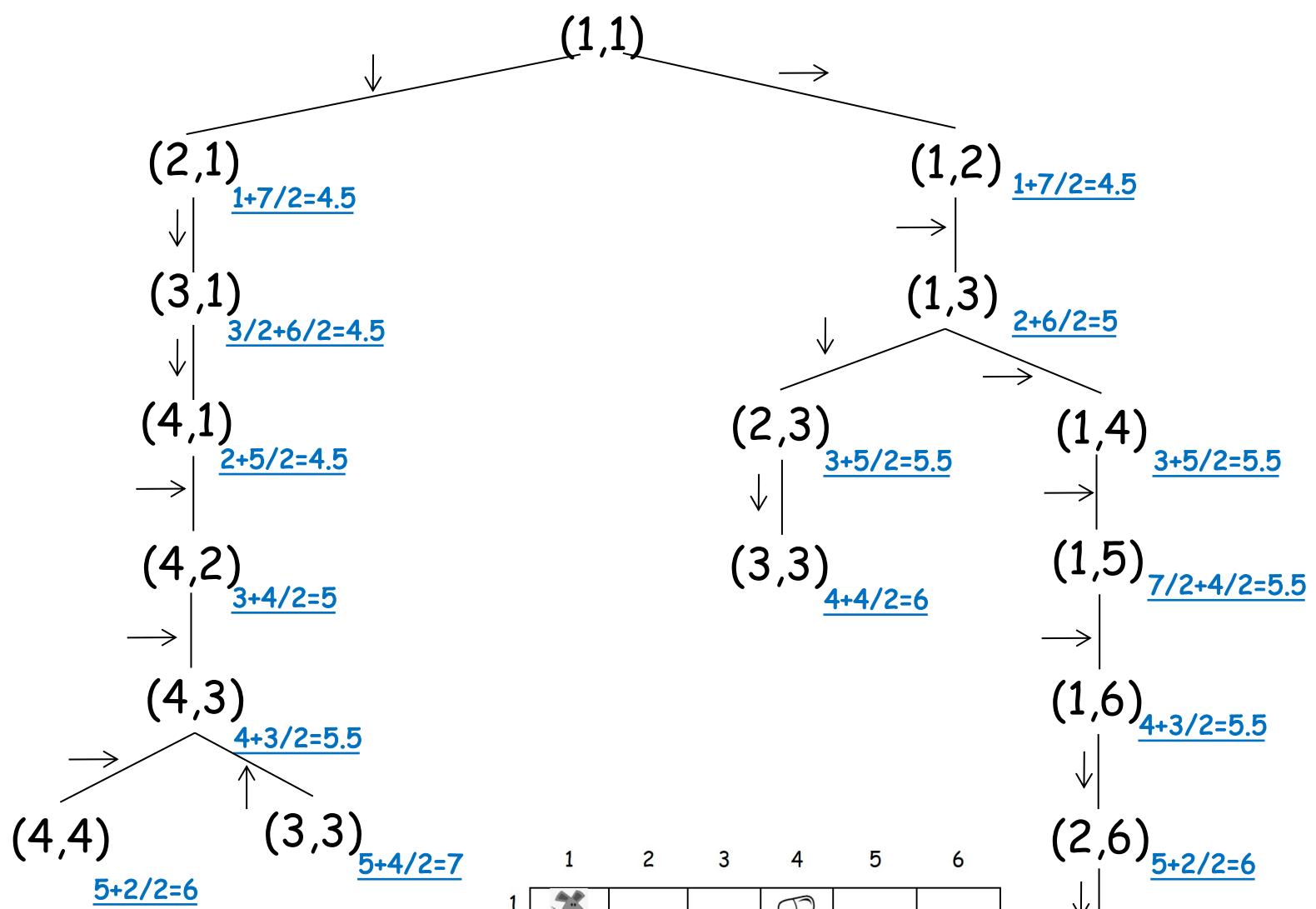
	1	2	3	4	5	6
1	Mouse			Clip		
2	Clip					Clip
3		Clip				
4			Clip			
					Fin	

$\downarrow, \rightarrow, \uparrow, \leftarrow$

$(4,6) \underline{6+0=6}$

$(3,6) \underline{11/2+1/2=6}$

$(2,6) \underline{5+2/2=6}$



	1	2	3	4	5	6
1	Mouse			Clip		
2	Clip					Clip
3						
4						Fin

$\downarrow, \rightarrow, \uparrow, \leftarrow$

\ast
 $\frac{6+0}{2}=6$

