

## 1.- Relational model operations

1.- What operations do we need to do to get the Names of the employees with a salary bigger than 20

table 1

primarykey	name	age	group	title
1	maria	7	a1	admon
2	candela	9	b4	director
3	fernando	11	c3	eng

table 2

primary key	date	salaries
1	01/10/2018	10
2	01/10/2017	45
3	01/11/2018	30

2.- What is the hierarchy tree in this html code

```

<property>
  <document>
    <author> paper database </author>
  </document>
  <film>
    <author> paper database </author>
  </film>
</property>
  
```



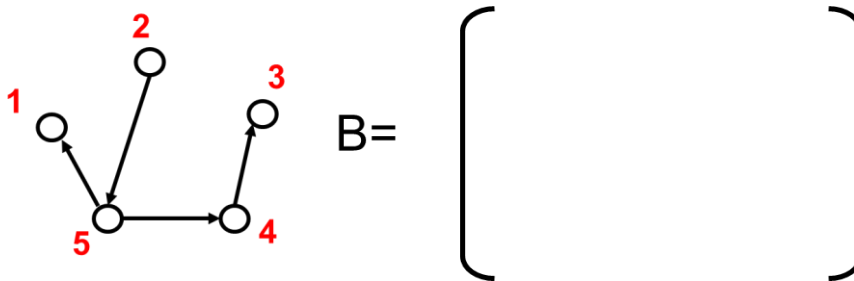
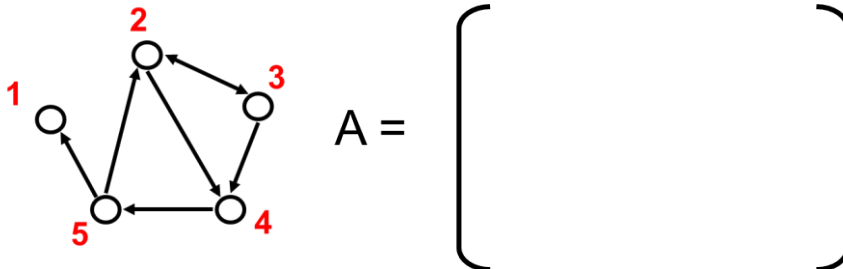
CLASES PARTICULARES, TUTORÍAS TÉCNICAS ONLINE  
 LLAMA O ENVÍA WHATSAPP: 689 45 44 70

---

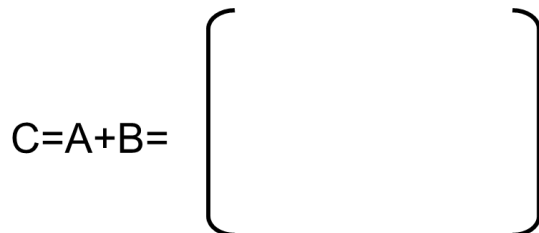
ONLINE PRIVATE LESSONS FOR SCIENCE STUDENTS  
 CALL OR WHATSAPP:689 45 44 70

### 3.- Networks and matrices

3.1.- Define the adjacency matrix of the following network. The adjacency matrix represents a network, calculate the matrix of the following network



### 3.2 Sum A+B



### 3.3 Draw the corresponding network C



CLASES PARTICULARES, TUTORÍAS TÉCNICAS ONLINE  
LLAMA O ENVÍA WHATSAPP: 689 45 44 70

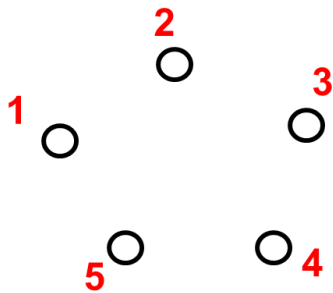
---

ONLINE PRIVATE LESSONS FOR SCIENCE STUDENTS  
CALL OR WHATSAPP:689 45 44 70

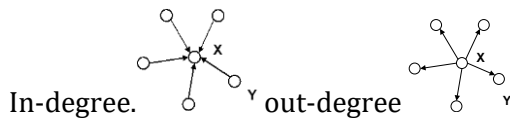
3.4 Calculate matrix  $D = \text{transposed of } C$

$$D = C^T = \left[ \begin{array}{c} \\ \\ \\ \\ \end{array} \right]$$

3.5 Draw the corresponding network  $D$ . What is the effect of the operation in the graph?



3.5 We define the **in-degree** as the number of arrows aiming a node and **out-degree** the outcome links



**Outdegree:** outdegree for node 3 is \_\_\_\_, which we obtain by summing the number of non-zero entries in the 3rd row.

**Indegree:** the indegree for node 3 is \_\_\_\_, which we obtain by summing the number of non-zero entries in the 3rd column

Cartagena99

CLASES PARTICULARES, TUTORÍAS TÉCNICAS ONLINE  
LLAMA O ENVÍA WHATSAPP: 689 45 44 70

---

ONLINE PRIVATE LESSONS FOR SCIENCE STUDENTS  
CALL OR WHATSAPP: 689 45 44 70