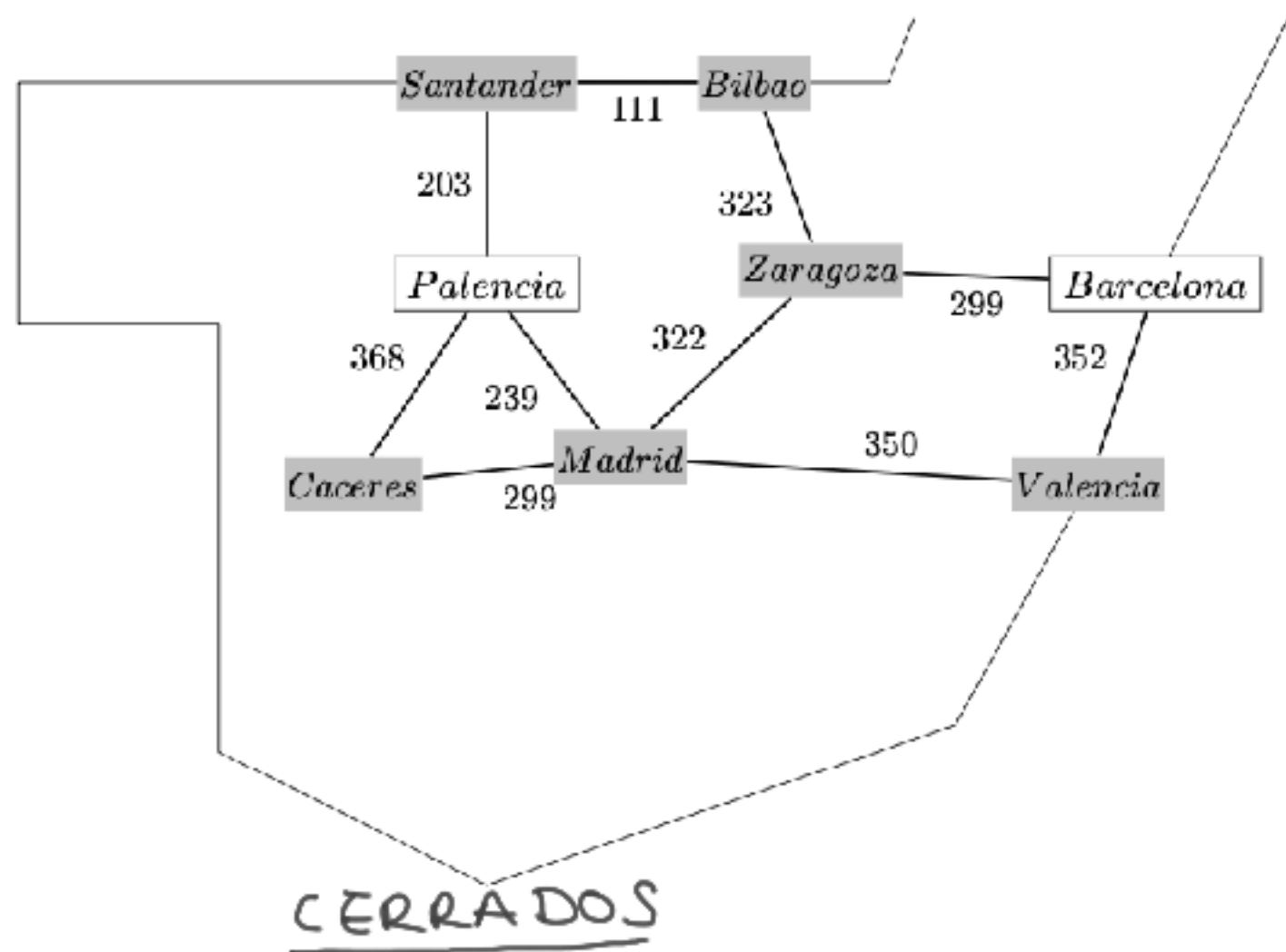
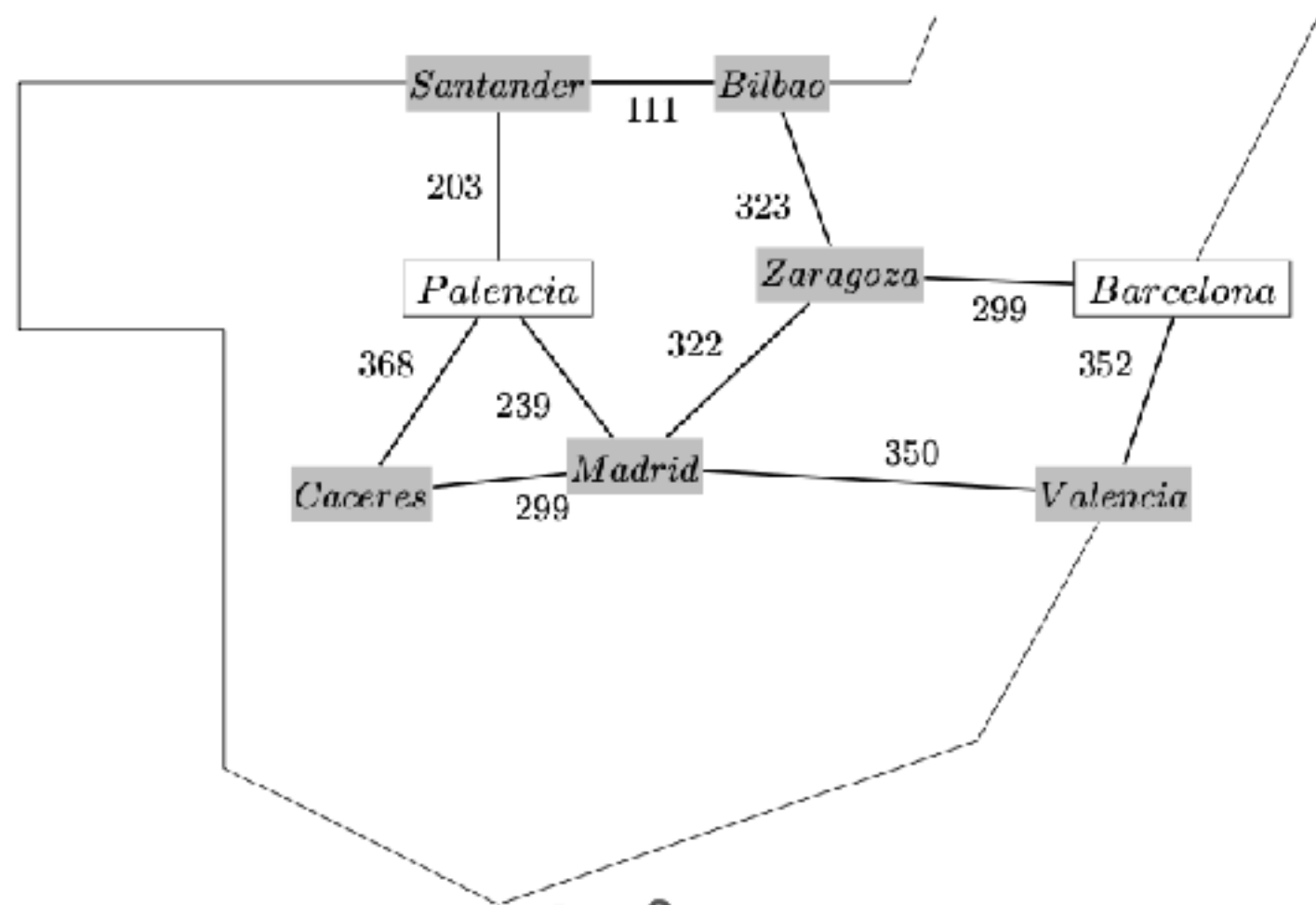


EJERCICIO 17 - COSTE UNIFORME



ABIERTOS
(Pal, \emptyset , 0)

EJERCICIO 17 - COSTE UNIFORME



CERRADOS
(Pal, \emptyset , 0)

ABIERTOS

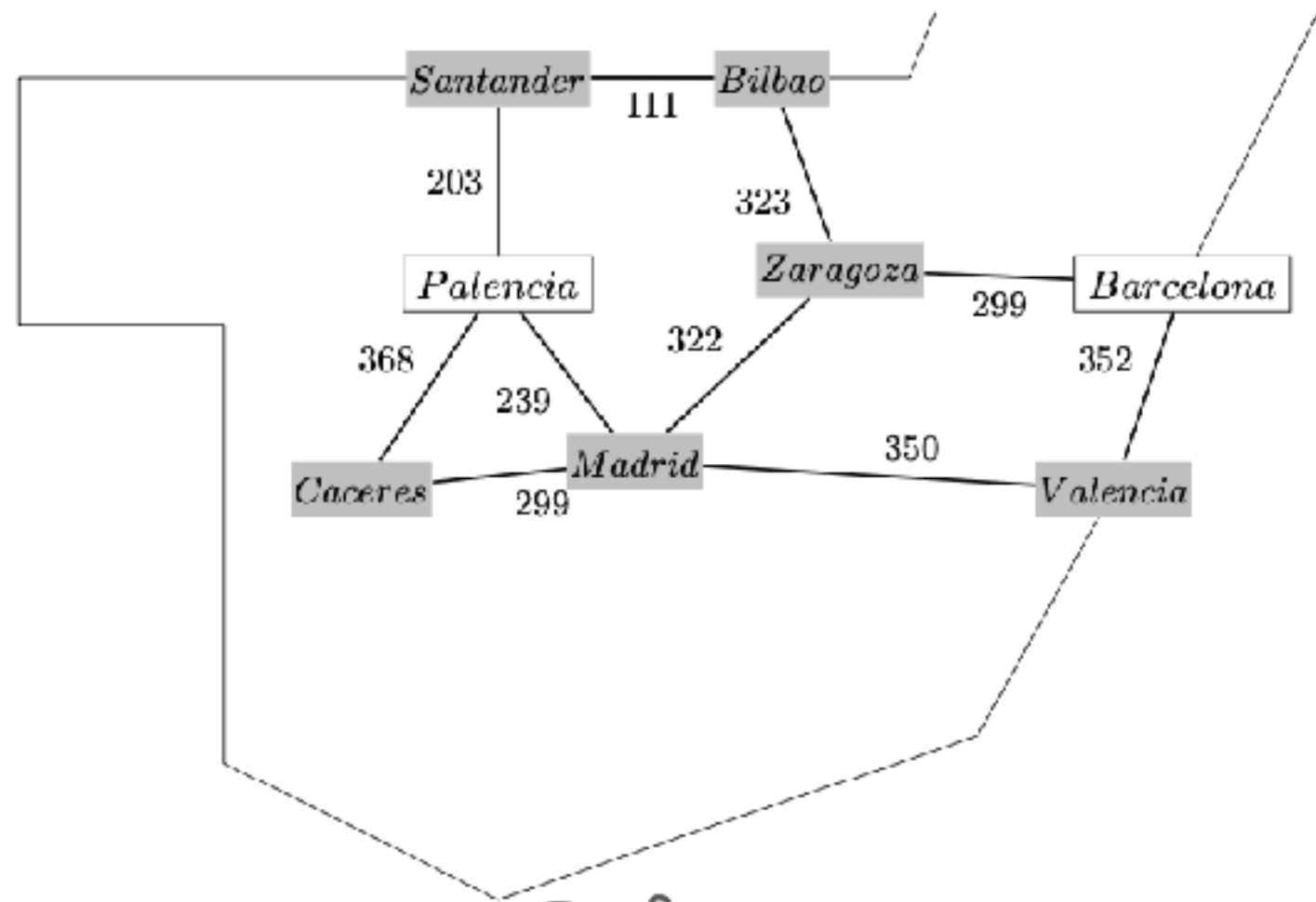
~~(Pal, \emptyset , 0)~~

(Mad, Pal, 239)

(Cac, Pal, 368)

(San, Pal, 203)

EJERCICIO 17 - COSTE UNIFORME



CERRADOS

(Pal, \emptyset , 0)

(San, Pal, 203)

ABIERTOS

~~(Pal, \emptyset , 0)~~

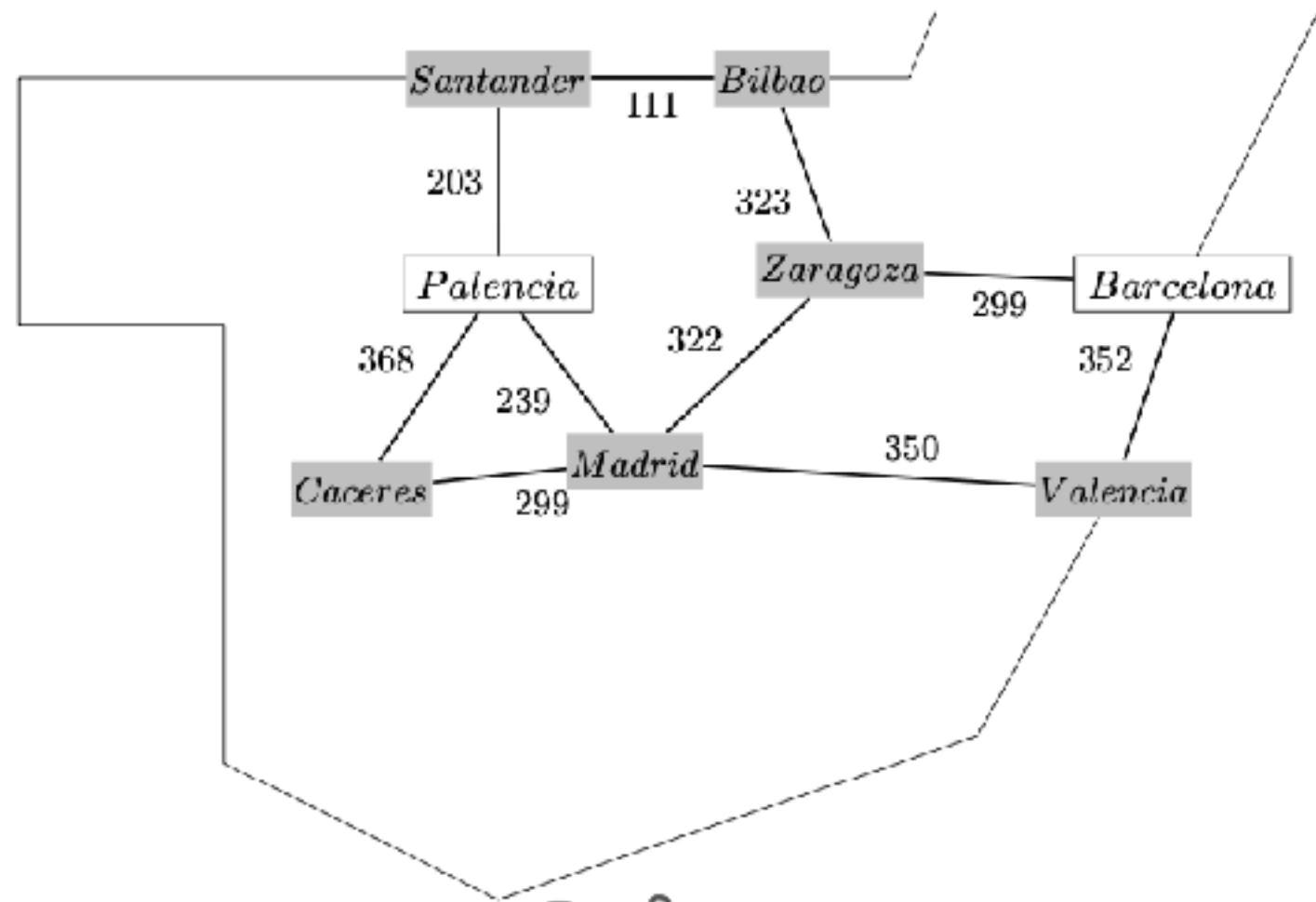
(Mad, Pal, 239)

(Cac, Pal, 368)

~~(San, Pal, 203)~~

(Bil, San, 314)

EJERCICIO 17 - COSTE UNIFORME



CERRADOS

(Pal, \emptyset , 0)

(San, Pal, 203)

(Mad, Pal, 239)

ABIERTOS

~~(Pal, \emptyset , 0)~~

~~(Mad, Pal, 239)~~

(Cac, Pal, 368)

~~(San, Pal, 203)~~

(Bil, San, 314)

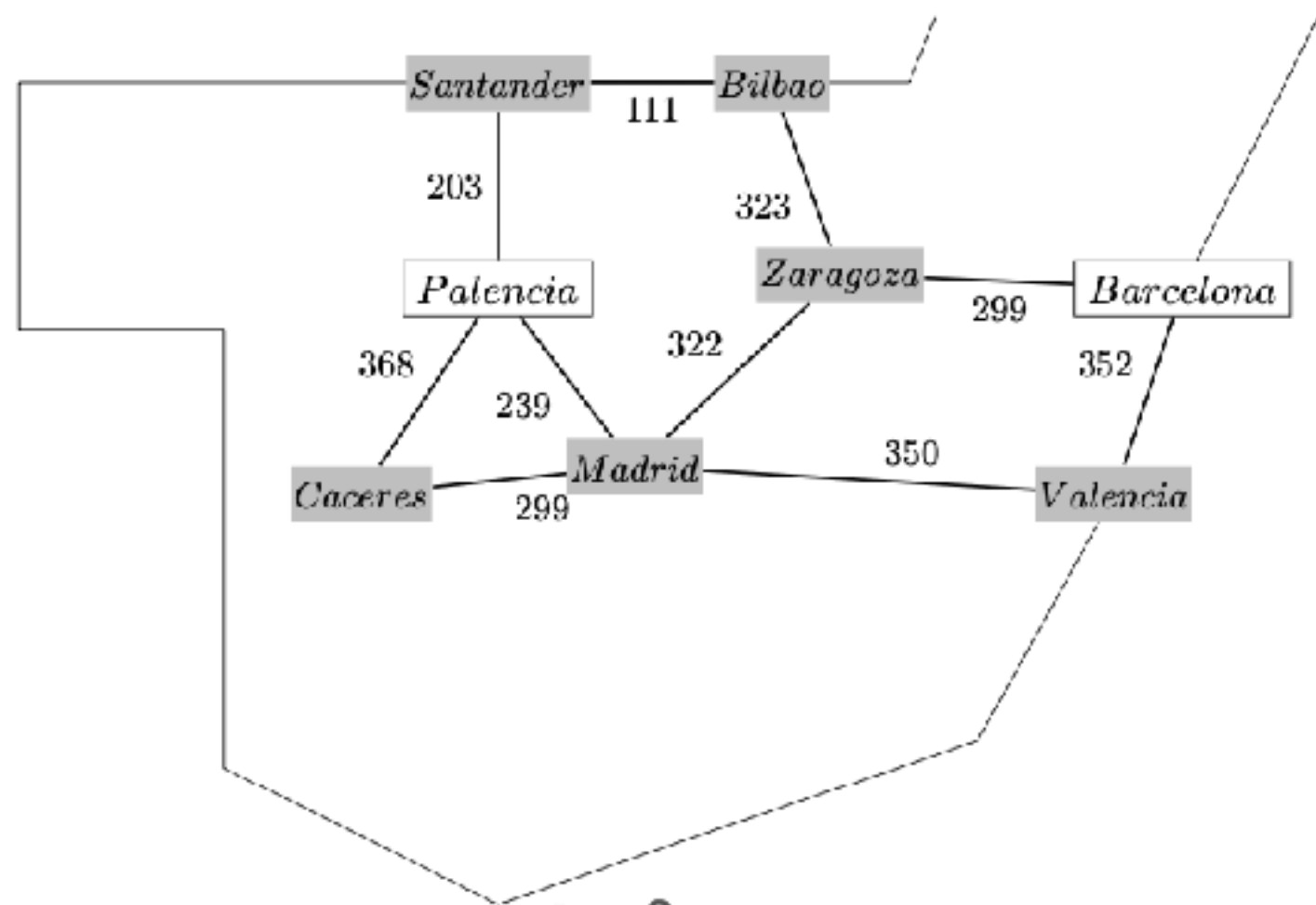
~~(Cac, Mad, 538)~~

(Zar, Mad, 561)

(Val, Mad, 589)

Repetidos

EJERCICIO 17 - COSTE UNIFORME



CERRADOS

(Pal, \emptyset , 0)

(San, Pal, 203)

(Mad, Pal, 239)

(Bil, San, 314)

ABIERTOS

~~(Pal, \emptyset , 0)~~

~~(Mad, Pal, 239)~~

(Cac, Pal, 368)

~~(San, Pal, 203)~~

~~(Bil, San, 314)~~

~~(Cac, Mad, 538)~~

(Zar, Mad, 561)

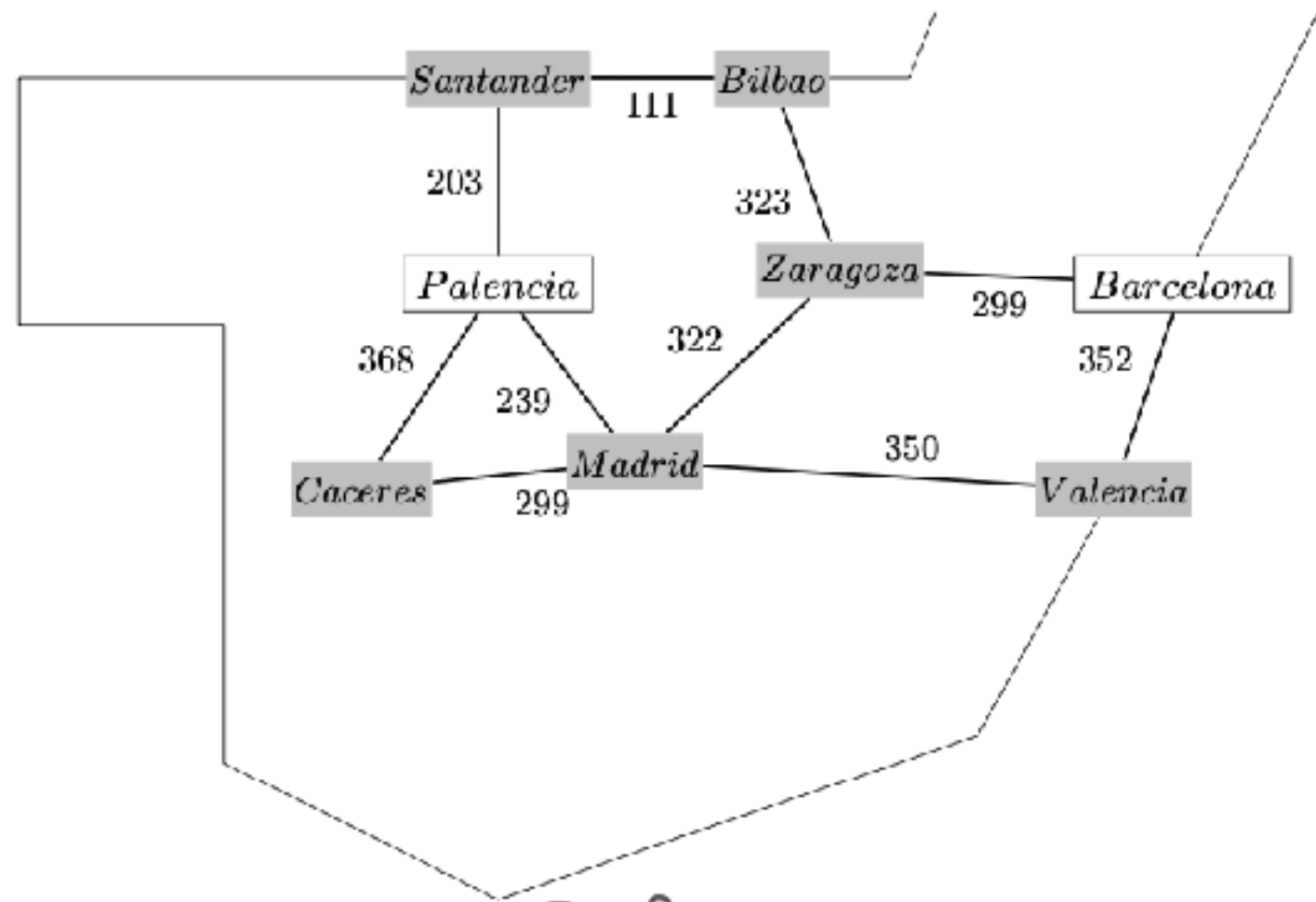
(Val, Mad, 589)

~~(Zar, Bil, 637)~~

Repetidos

Repetidos

EJERCICIO 17 - COSTE UNIFORME



CERRADOS

(Pal, \emptyset , 0)
(San, Pal, 203)
(Mad, Pal, 239)
(Bil, San, 314)
(Cac, Pal, 368)

ABIERTOS

~~(Pal, \emptyset , 0)~~

~~(Mad, Pal, 239)~~

~~(Cac, Pal, 368)~~

~~(San, Pal, 203)~~

~~(Bil, San, 314)~~

~~(Cac, Mad, 538)~~

(Zar, Mad, 561)

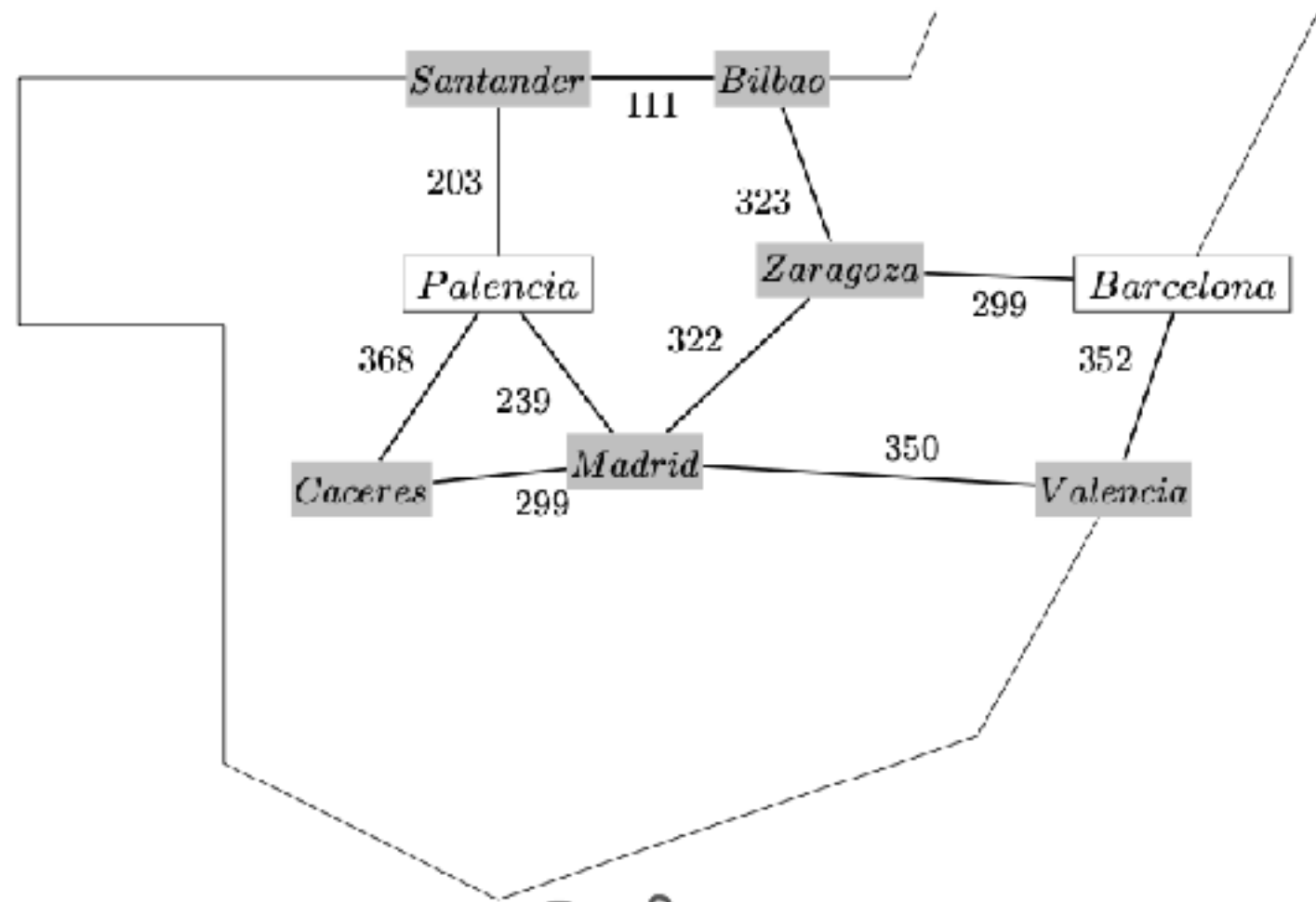
(Val, Mad, 589)

~~(Zar, Bil, 637)~~

Repetidos

Repetidos

EJERCICIO 17 - COSTE UNIFORME



CERRADOS

(Pal, \emptyset , 0)

(San, Pal, 203)

(Mad, Pal, 239)

(Bil, San, 314)

(Cac, Pal, 368)

(Zar, Mad, 561)

ABIERTOS

~~(Pal, \emptyset , 0)~~

~~(Mad, Pal, 239)~~

~~(Cac, Pal, 368)~~

~~(San, Pal, 203)~~

~~(Bil, San, 314)~~

~~(Cac, Mad, 538)~~

~~(Zar, Mad, 561)~~

(Val, Mad, 589)

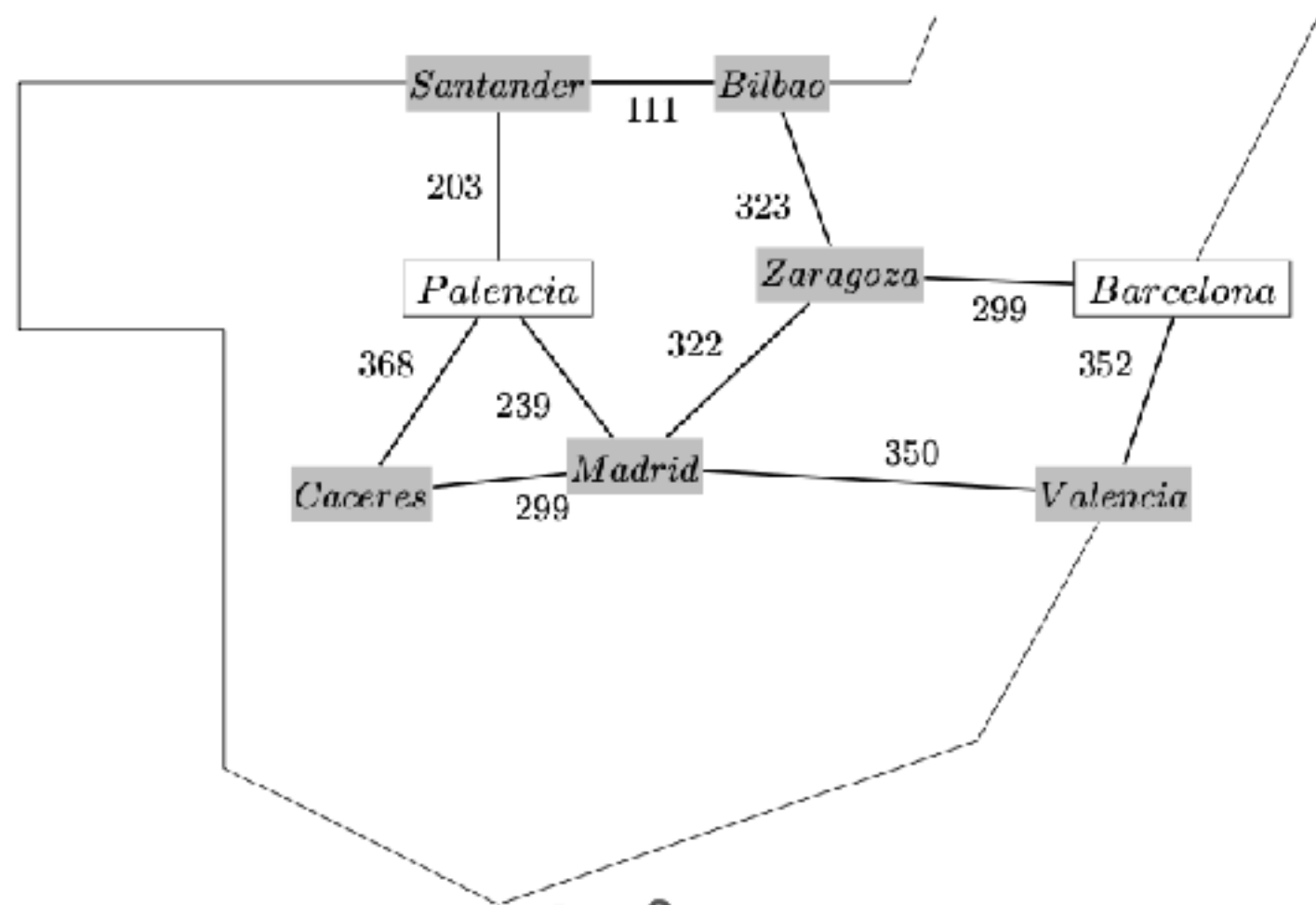
~~(Zar, Bil, 637)~~

(Bar, Zar, 860)

Repetidos

Repetidos

EJERCICIO 17 - COSTE UNIFORME



CERRADOS

(Pal, \emptyset , 0)

(San, Pal, 203)

(Mad, Pal, 239)

(Bil, San, 314)

(Cac, Pal, 368)

(Zar, Mad, 561)

(Val, Mad, 589)

ABIERTOS

~~(Pal, \emptyset , 0)~~

~~(Mad, Pal, 239)~~

~~(Cac, Pal, 368)~~

~~(San, Pal, 203)~~

~~(Bil, San, 314)~~

~~(Cac, Mad, 538)~~

~~(Zar, Mad, 561)~~

~~(Val, Mad, 589)~~

~~(Zar, Bil, 637)~~

(Bar, Zar, 860)

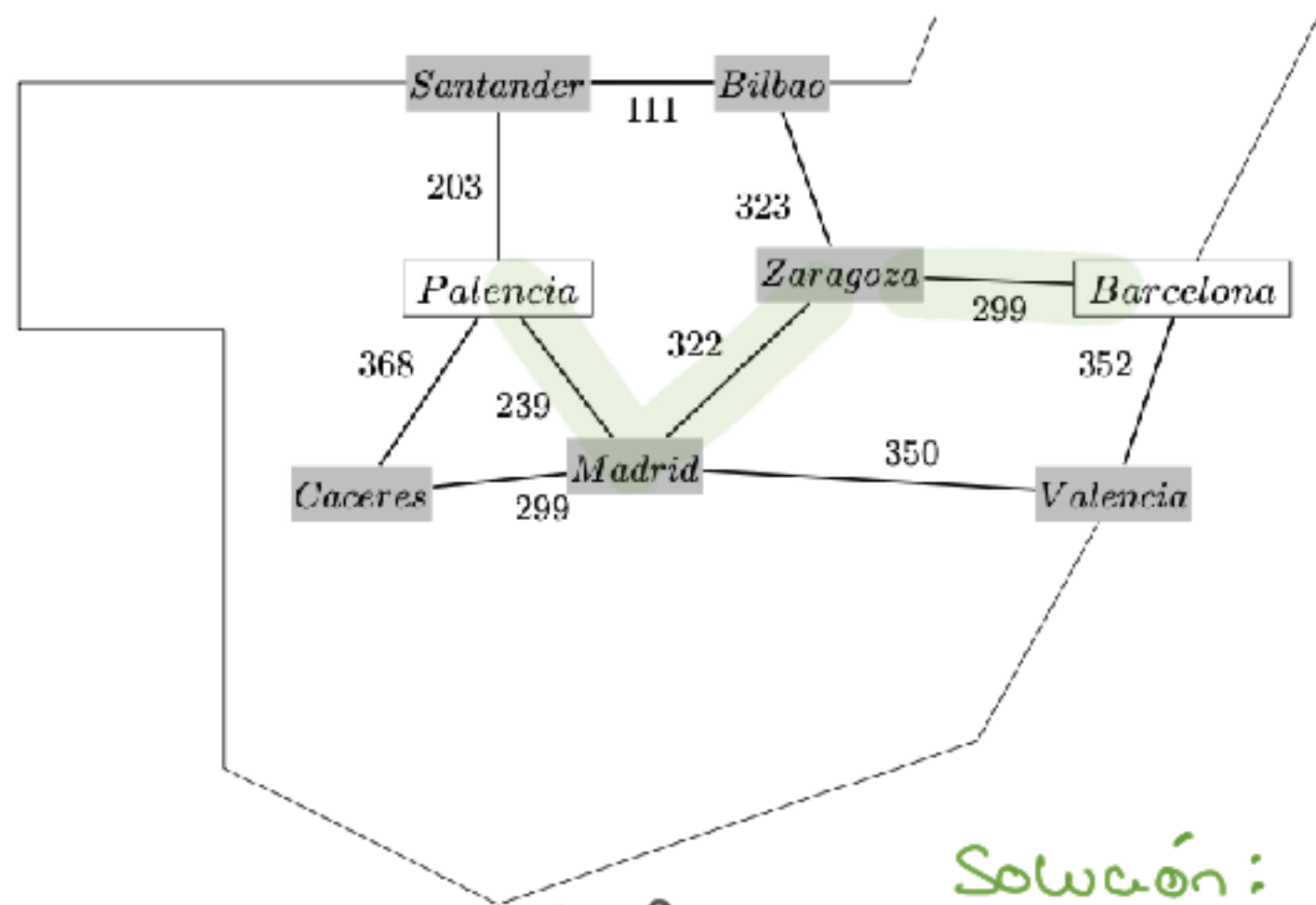
~~(Bar, Val, 941)~~

Repetidos

Repetidos

Repetidos

EJERCICIO 17 - COSTE UNIFORME



CERRADOS

(Pal, \emptyset , 0)

(San, Pal, 203)

(Mad, Pal, 239)

(Bil, San, 314)

(Cac, Pal, 368)

(Zar, Mad, 561)

(Val, Mad, 589)

(Bar, Zar, 860) = Coste

Solución:

Pal \rightarrow Mad \rightarrow Zar \rightarrow
 \rightarrow Bar

ABIERTOS

~~(Pal, \emptyset , 0)~~

~~(Mad, Pal, 239)~~

~~(Cac, Pal, 368)~~

~~(San, Pal, 203)~~

~~(Bil, San, 314)~~

~~(Cac, Mad, 538)~~

~~(Zar, Mad, 561)~~

~~(Val, Mad, 589)~~

~~(Zar, Bil, 637)~~

~~(Bar, Zar, 860)~~

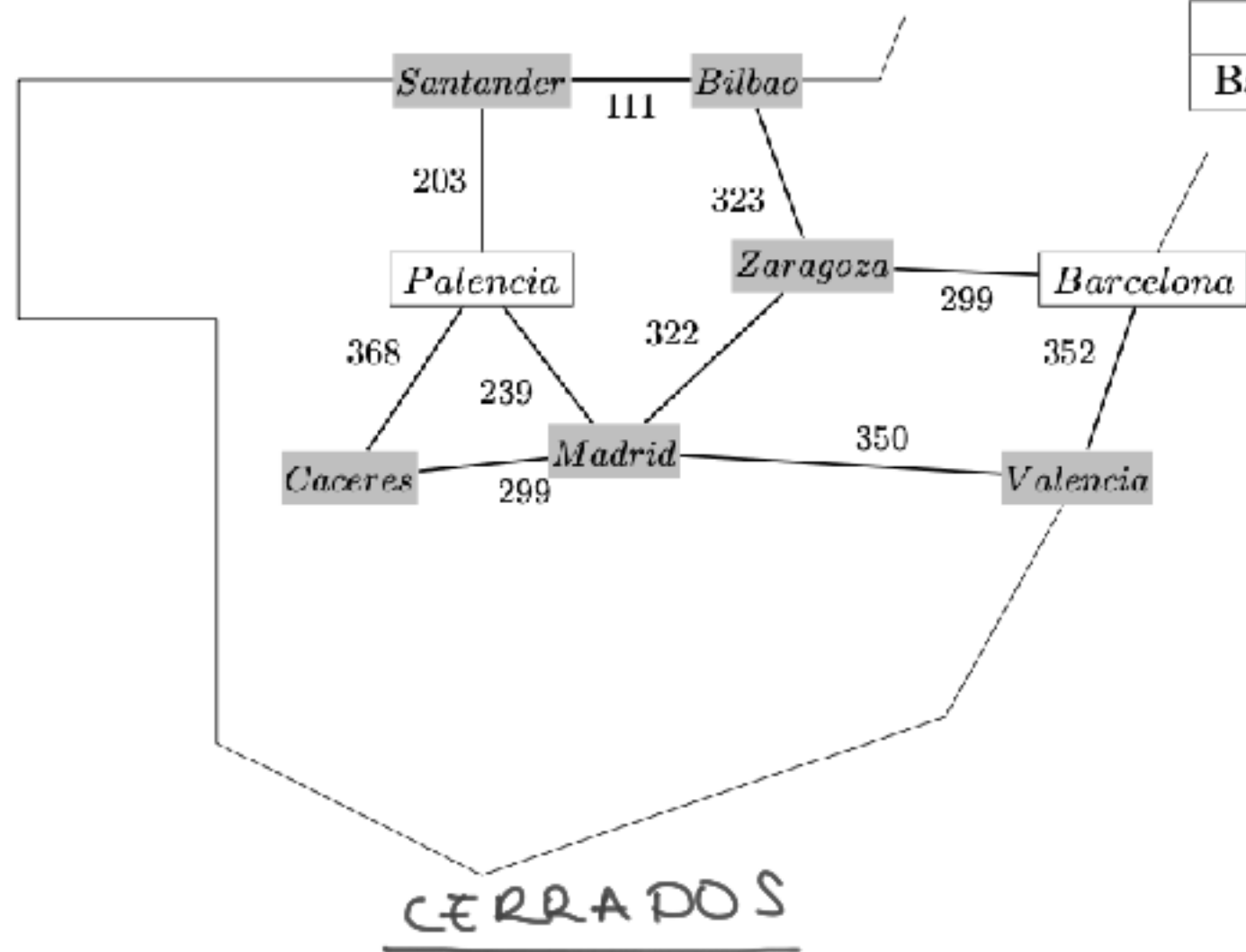
~~(Bar, Val, 941)~~

Repetidos

Repetidos

Repetidos

EJERCICIO 17 - A* HEURÍSTICA MONÓTONA Y ADMISIBLE



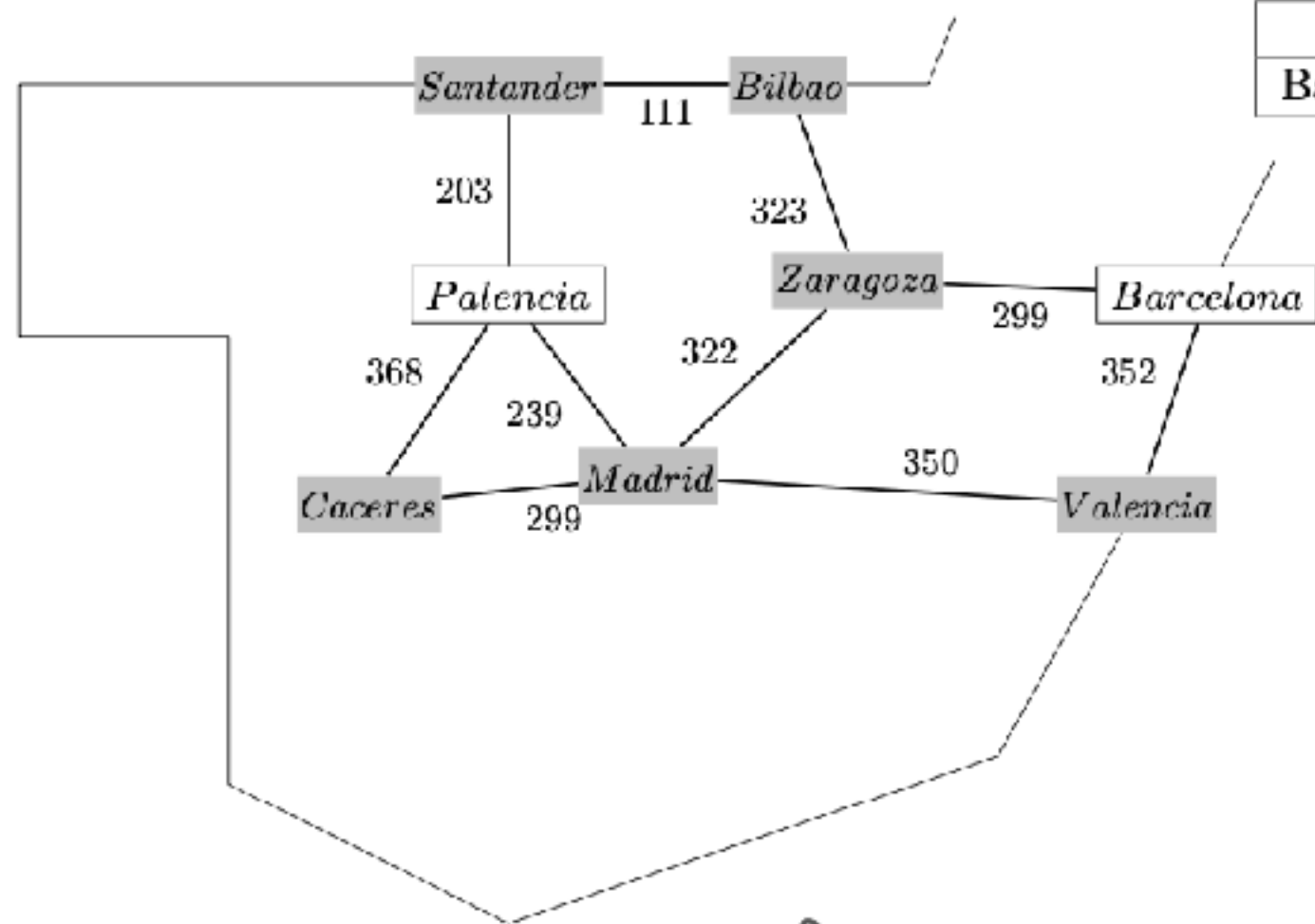
	Bilbao	Cáceres	Madrid	Palencia	Santander	Valencia	Zaragoza
Barcelona	502	850	550	580	605	303	275

ABIERTOS

(Pal, \emptyset , 0, 580, 580)

$$f = g + h$$

EJERCICIO 17 - A* HEURÍSTICA MONÓTONA Y ADMISIBLE



	Bilbao	Cáceres	Madrid	Palencia	Santander	Valencia	Zaragoza
Barcelona	502	850	550	580	605	303	275

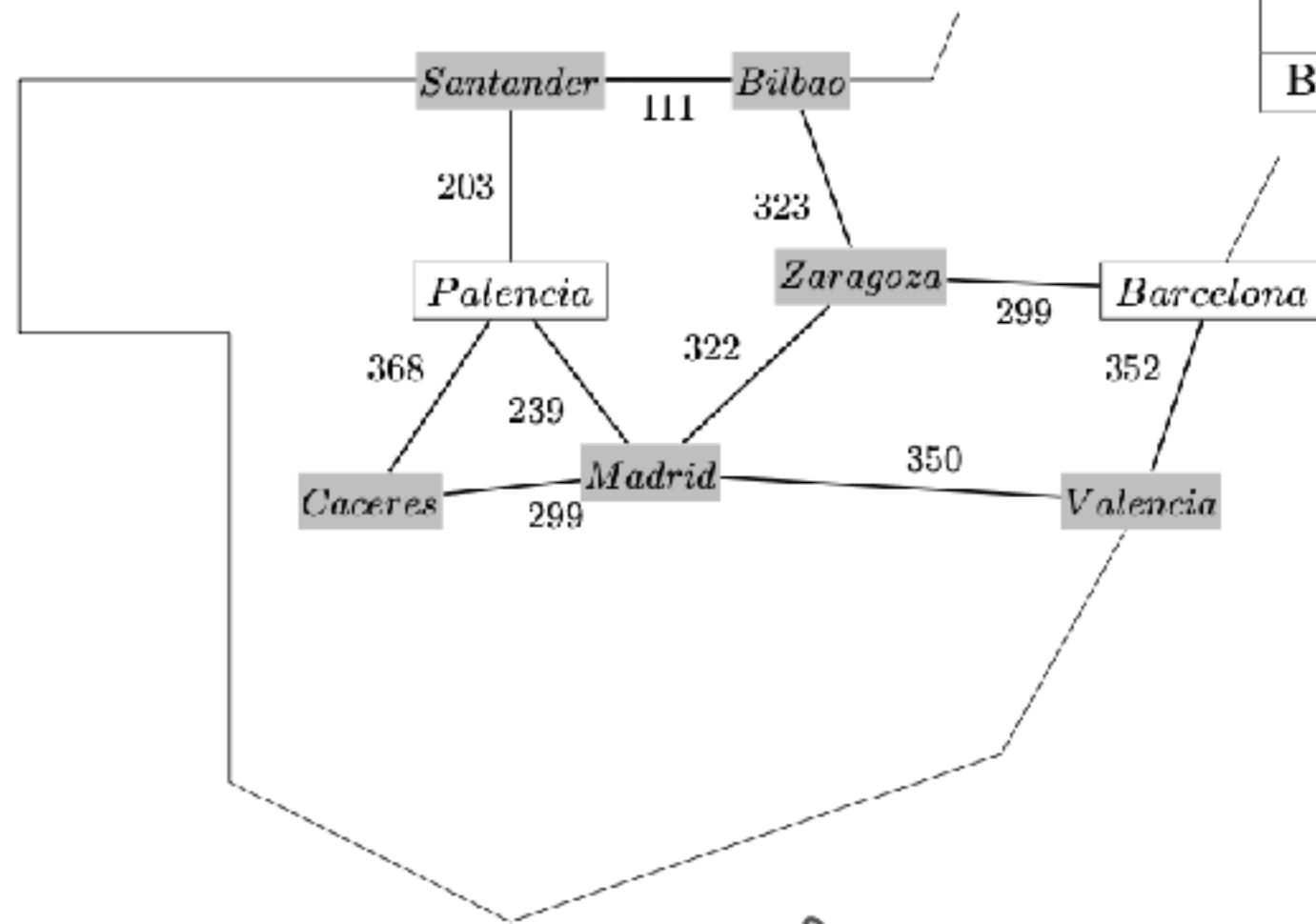
ABIERTOS

~~(Pal, \emptyset , 0, 580, 580)~~
(San, Pal, 203, 605, 808)
(Cac, Pal, 368, 850, 1218)
(Mad, Pal, 239, 550, 789)

CERRADOS

(Pal, \emptyset , 0, 580, 580)

EJERCICIO 17 - A* HEURÍSTICA MONÓTONA Y ADMISIBLE



	Bilbao	Cáceres	Madrid	Palencia	Santander	Valencia	Zaragoza
Barcelona	502	850	550	580	605	303	275

ABIERTOS

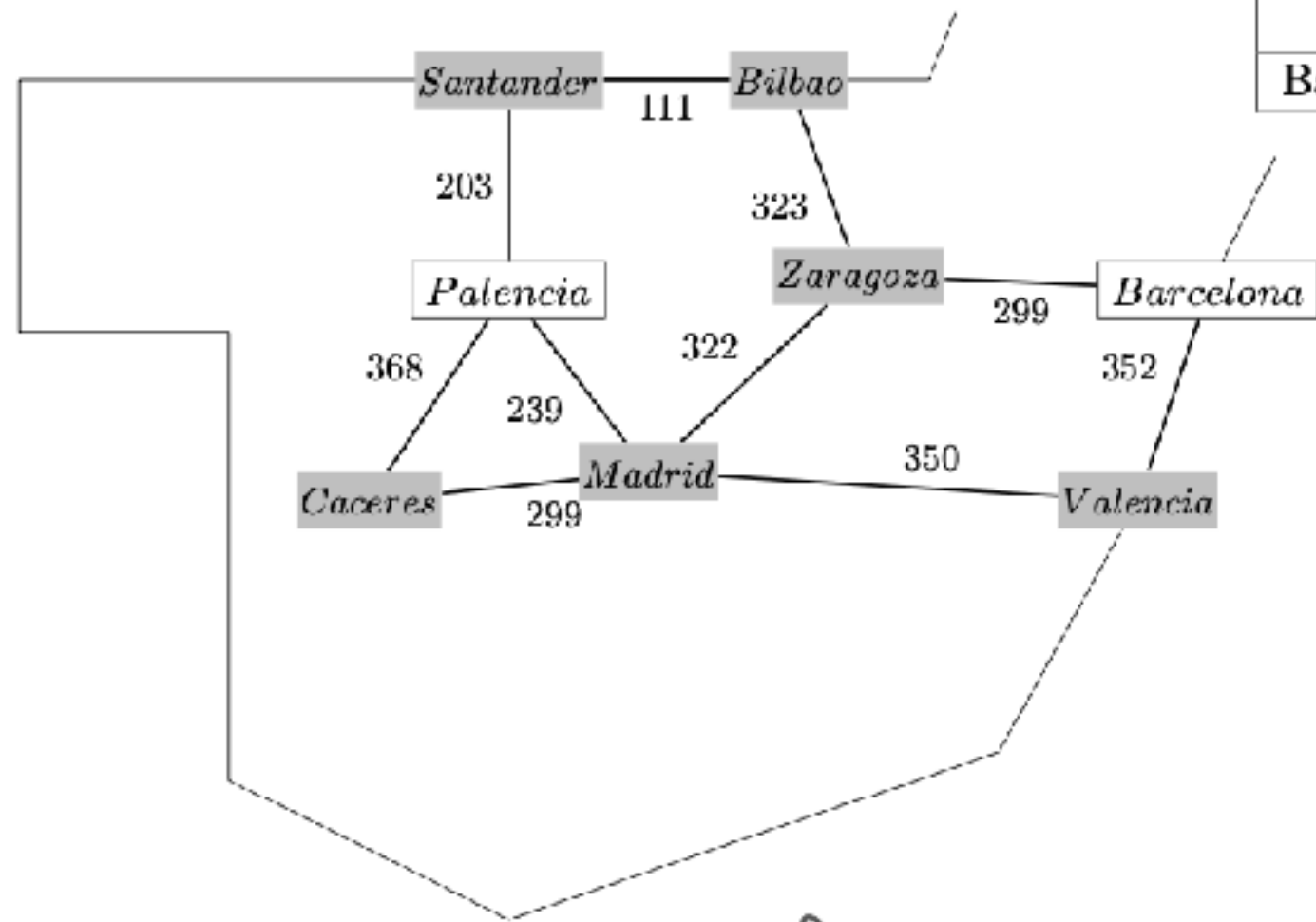
~~(Pal, \emptyset , 0, 580, 580)~~
(San, Pal, 203, 605, 808)
(Cac, Pal, 368, 850, 1218)
~~(Mad, Pal, 239, 550, 789)~~
~~(Cac, Mad, 538, 850, 1388)~~
(Zar, Mad, 561, 275, 836)
(Val, Mad, 509, 303, 892)

Repetidos

CERRADOS

(Pal, \emptyset , 0, 580, 580)
(Mad, Pal, 239, 550, 789)

EJERCICIO 17 - A* HEURÍSTICA MONÓTONA Y ADMISIBLE



	Bilbao	Cáceres	Madrid	Palencia	Santander	Valencia	Zaragoza
Barcelona	502	850	550	580	605	303	275

ABIERTOS

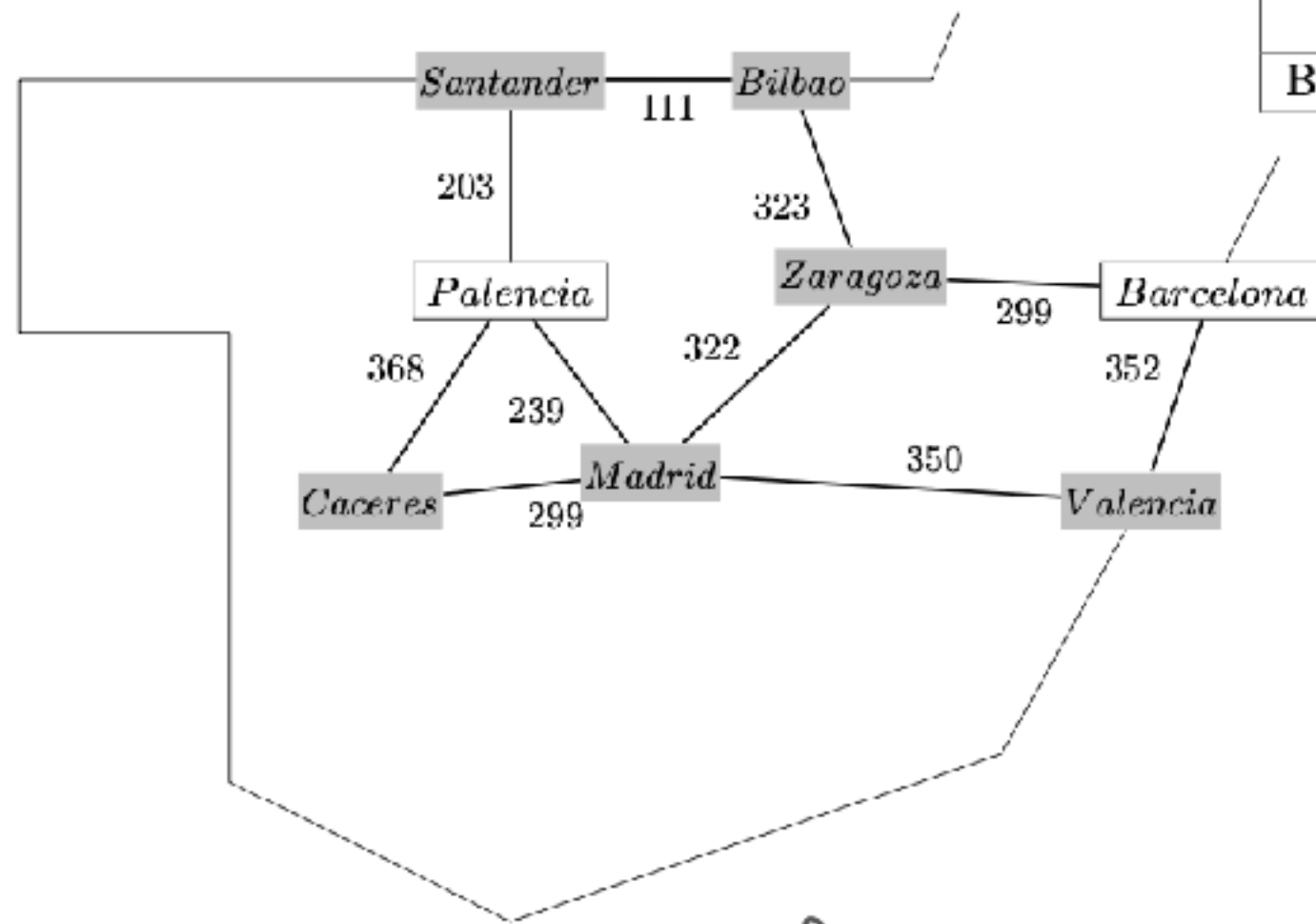
~~(Pal, \emptyset , 0, 580, 580)~~
~~(San, Pal, 203, 605, 808)~~
~~(Cac, Pal, 368, 850, 1218)~~
~~(Mad, Pal, 239, 550, 789)~~
~~(Cac, Mad, 538, 850, 1388)~~
(Zar, Mad, 561, 275, 836)
(Val, Mad, 509, 303, 892)
(Bil, San, 314, 502, 816)

Repetidos

CERRADOS

(Pal, \emptyset , 0, 580, 580)
(Mad, Pal, 239, 550, 789)
(San, Pal, 203, 605, 808)

EJERCICIO 17 - A* HEURÍSTICA MONÓTONA Y ADMISIBLE



	Bilbao	Cáceres	Madrid	Palencia	Santander	Valencia	Zaragoza
Barcelona	502	850	550	580	605	303	275

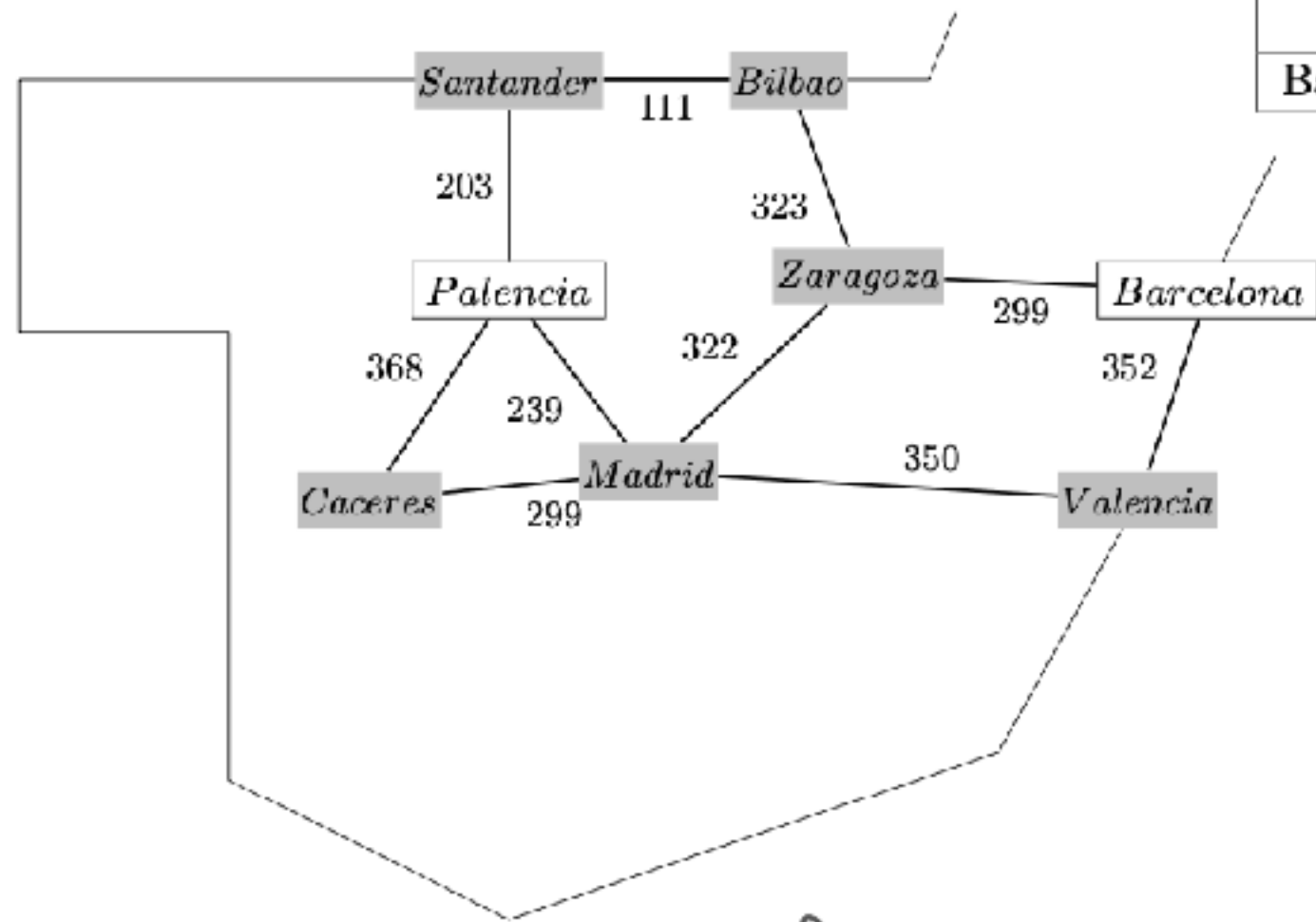
ABIERTOS

- ~~(Pal, \emptyset , 0, 580, 580)~~
 - ~~(San, Pal, 203, 605, 808)~~
 - ~~(Cac, Pal, 368, 850, 1218)~~
 - ~~(Mad, Pal, 239, 550, 789)~~
 - ~~(Cac, Mad, 538, 850, 1388)~~
 - ~~(Zar, Mad, 561, 275, 836)~~
 - ~~(Val, Mad, 509, 303, 892)~~
 - ~~(Bil, San, 314, 502, 816)~~
 - ~~(Zar, Bil, 637, 275, 912)~~
- Repetidos
- Repetidos

CERRADOS

- ~~(Pal, \emptyset , 0, 580, 580)~~
- ~~(Mad, Pal, 239, 550, 789)~~
- ~~(San, Pal, 203, 605, 808)~~
- ~~(Bil, San, 314, 502, 816)~~

EJERCICIO 17 - A* HEURÍSTICA MONÓTONA Y ADMISIBLE



	Bilbao	Cáceres	Madrid	Palencia	Santander	Valencia	Zaragoza
Barcelona	502	850	550	580	605	303	275

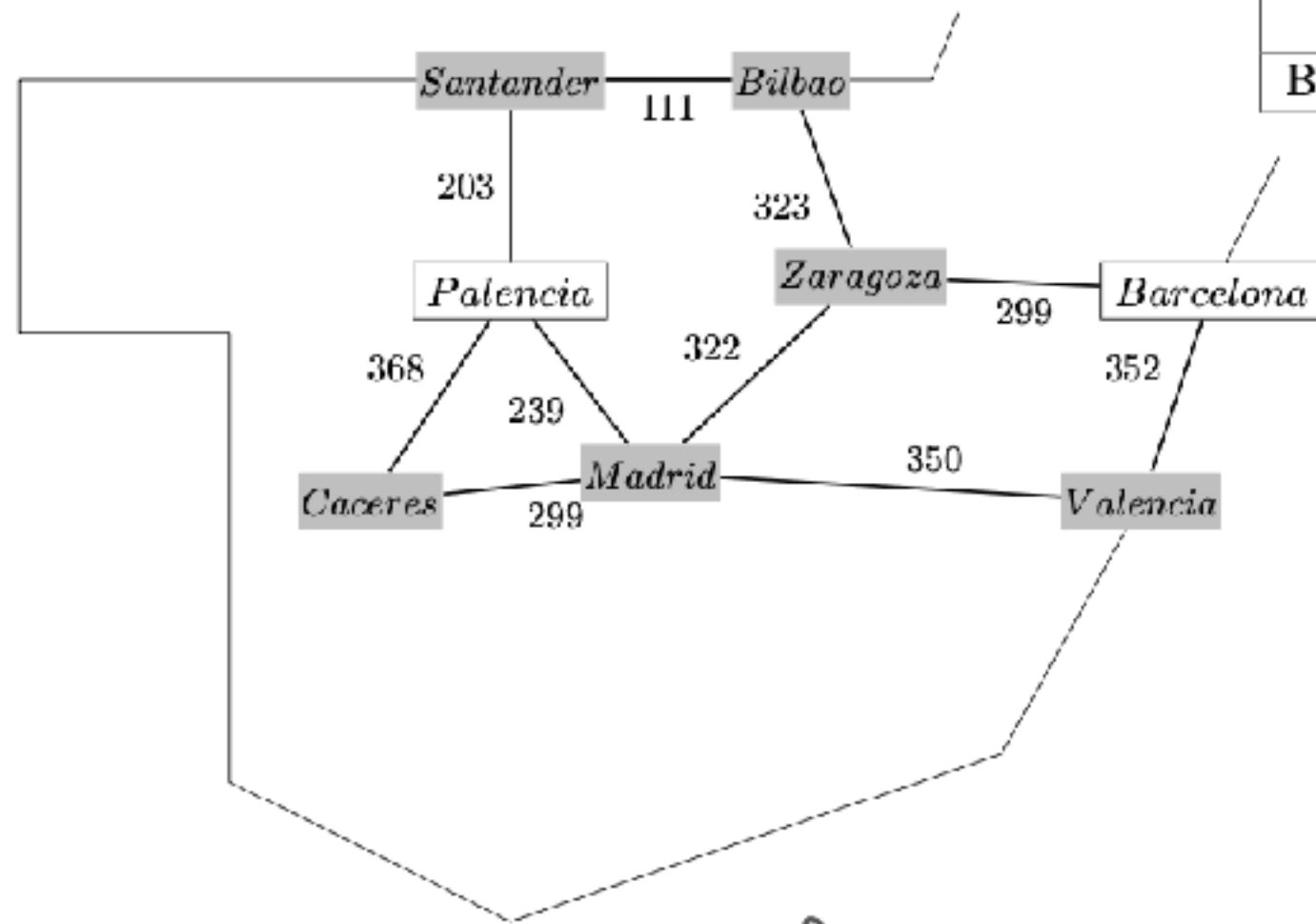
ABIERTOS

- ~~(Pal, \emptyset , 0, 580, 580)~~
~~(San, Pal, 203, 605, 808)~~
~~(Cac, Pal, 368, 850, 1218)~~ ← Repetidos
~~(Mad, Pal, 239, 550, 789)~~
~~(Cac, Mad, 538, 850, 1388)~~
~~(Zar, Mad, 561, 275, 836)~~ ← Repetidos
~~(Val, Mad, 509, 303, 892)~~
~~(Bil, San, 314, 502, 816)~~
~~(Zar, Bil, 637, 275, 912)~~
 (Bar, Zar, 860, 0, 860)

CERRADOS

- (Pal, \emptyset , 0, 580, 580)
 (Mad, Pal, 239, 550, 789)
 (San, Pal, 203, 605, 808)
 (Bil, San, 314, 502, 816)
 (Zar, Mad, 561, 275, 836)

EJERCICIO 17 - A* HEURÍSTICA MONÓTONA Y ADMISIBLE



	Bilbao	Cáceres	Madrid	Palencia	Santander	Valencia	Zaragoza
Barcelona	502	850	550	580	605	303	275

ABIERTOS

- ~~(Pal, \emptyset , 0, 580, 580)~~
 - ~~(San, Pal, 203, 605, 808)~~
 - ~~(Cac, Pal, 368, 850, 1218)~~
 - ~~(Mad, Pal, 239, 550, 789)~~
 - ~~(Cac, Mad, 538, 850, 1388)~~
 - ~~(Zar, Mad, 561, 275, 836)~~
 - ~~(Val, Mad, 509, 303, 892)~~
 - ~~(Bil, San, 314, 502, 816)~~
 - ~~(Zar, Bil, 637, 275, 912)~~
 - ~~(Bar, Zar, 860, 0, 860)~~
- Repetidos
- Repetidos

CERRADOS

- (Pal, \emptyset , 0, 580, 580)
- (Mad, Pal, 239, 550, 789)
- (San, Pal, 203, 605, 808)
- (Bil, San, 314, 502, 816)
- (Zar, Mad, 561, 275, 836)
- (Bar, Zar, 860, 0, 860)

Coste

Sol: Pal \rightarrow Mad \rightarrow Zar \rightarrow Bar.

* Misma solución, pero la encuentro antes.