

Coleg
Cymraeg
Cenedlaethol

CARDIFF
UNIVERSITY

PRIFYSGOL
CAERDYDD

Graffiau a Rhwydweithiau

Dr Geraint Palmer - Prifysgol Caerdydd

Byd go-iawn



Problem
mathemategol

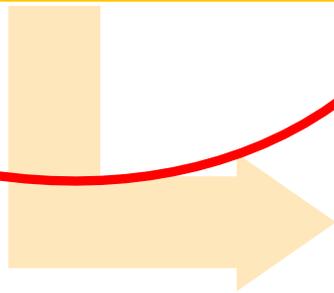
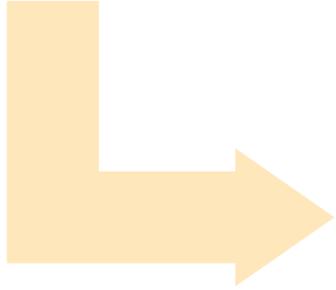


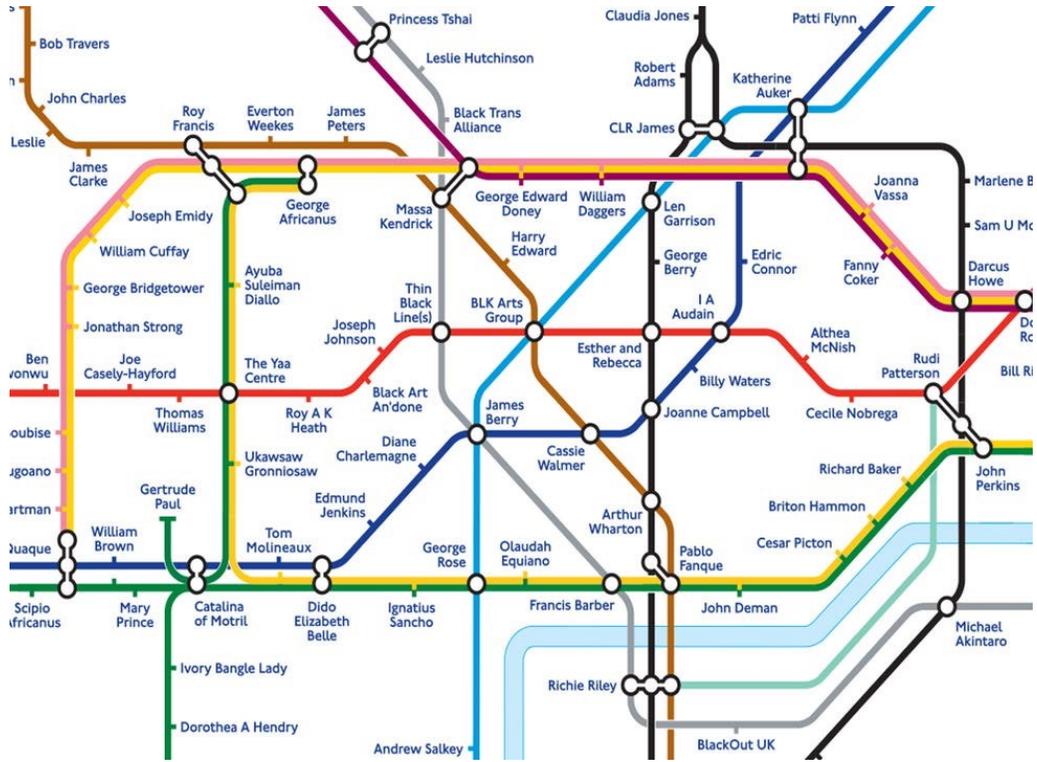
Datrysiad

Byd go-iawn

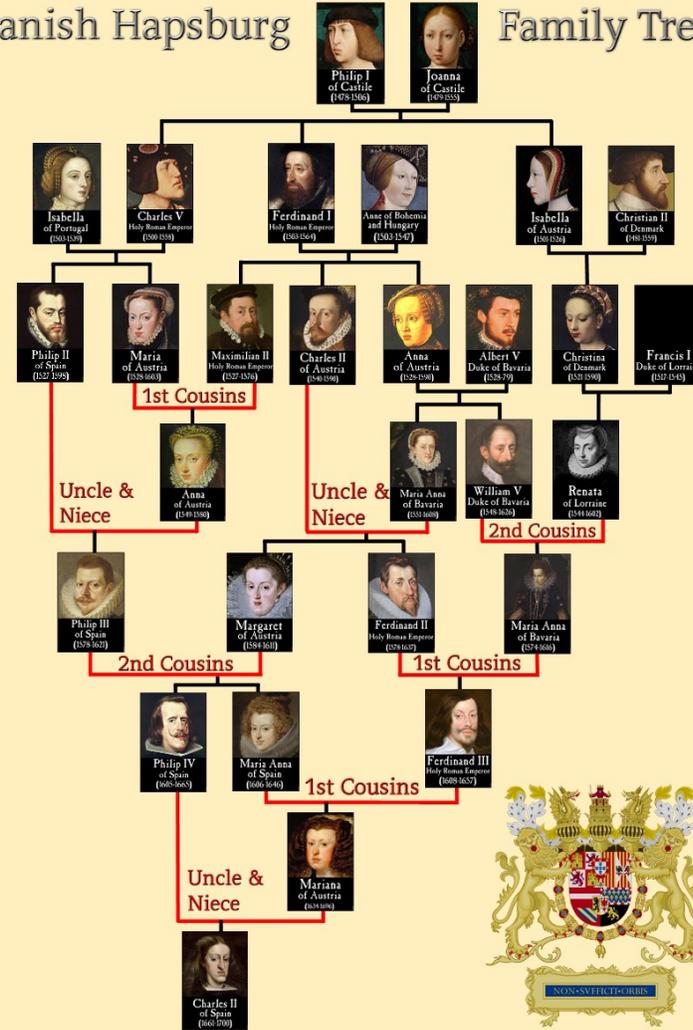
Problem
mathemategol

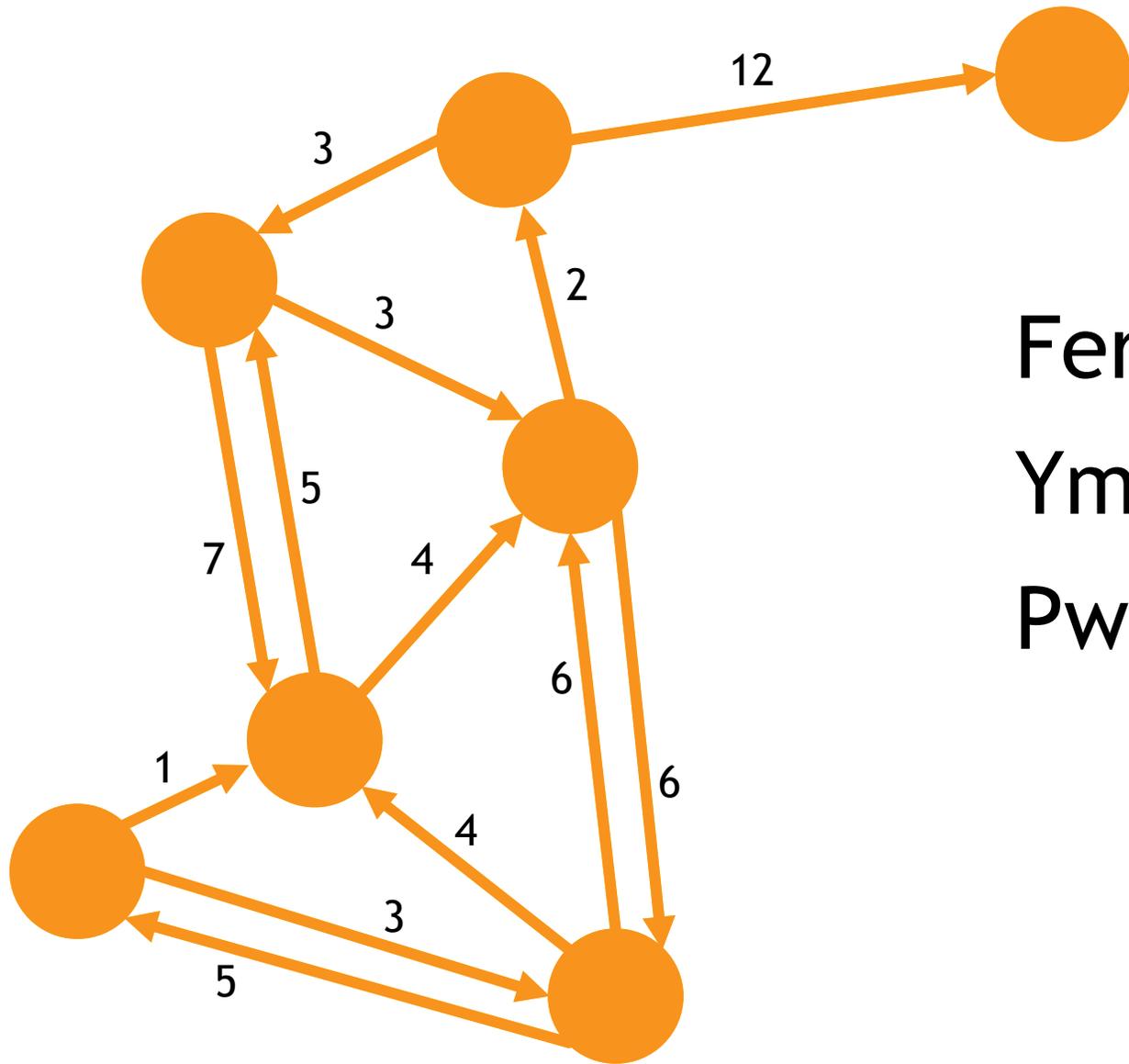
Datrysiad





Spanish Hapsburg Family Tree

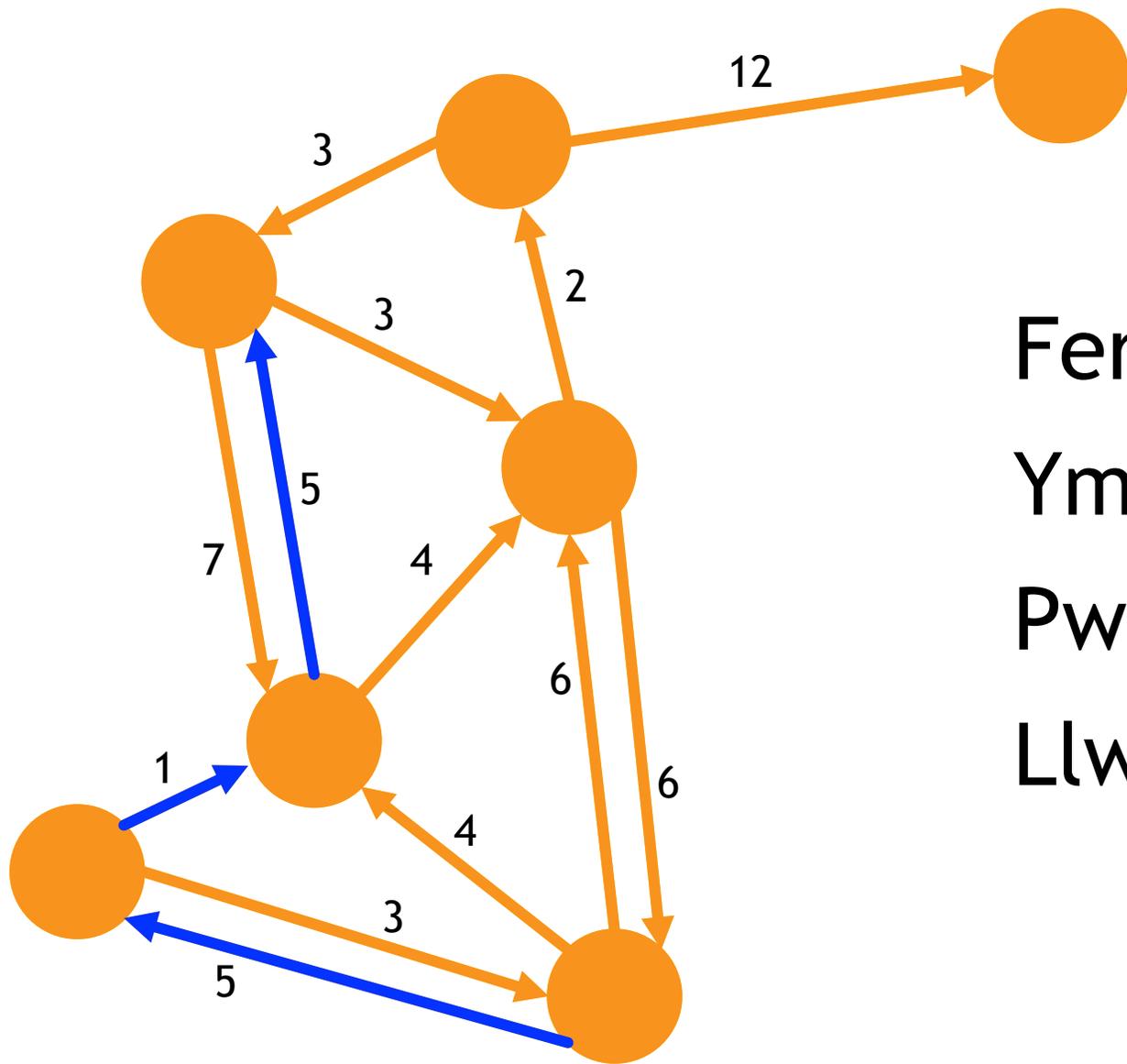




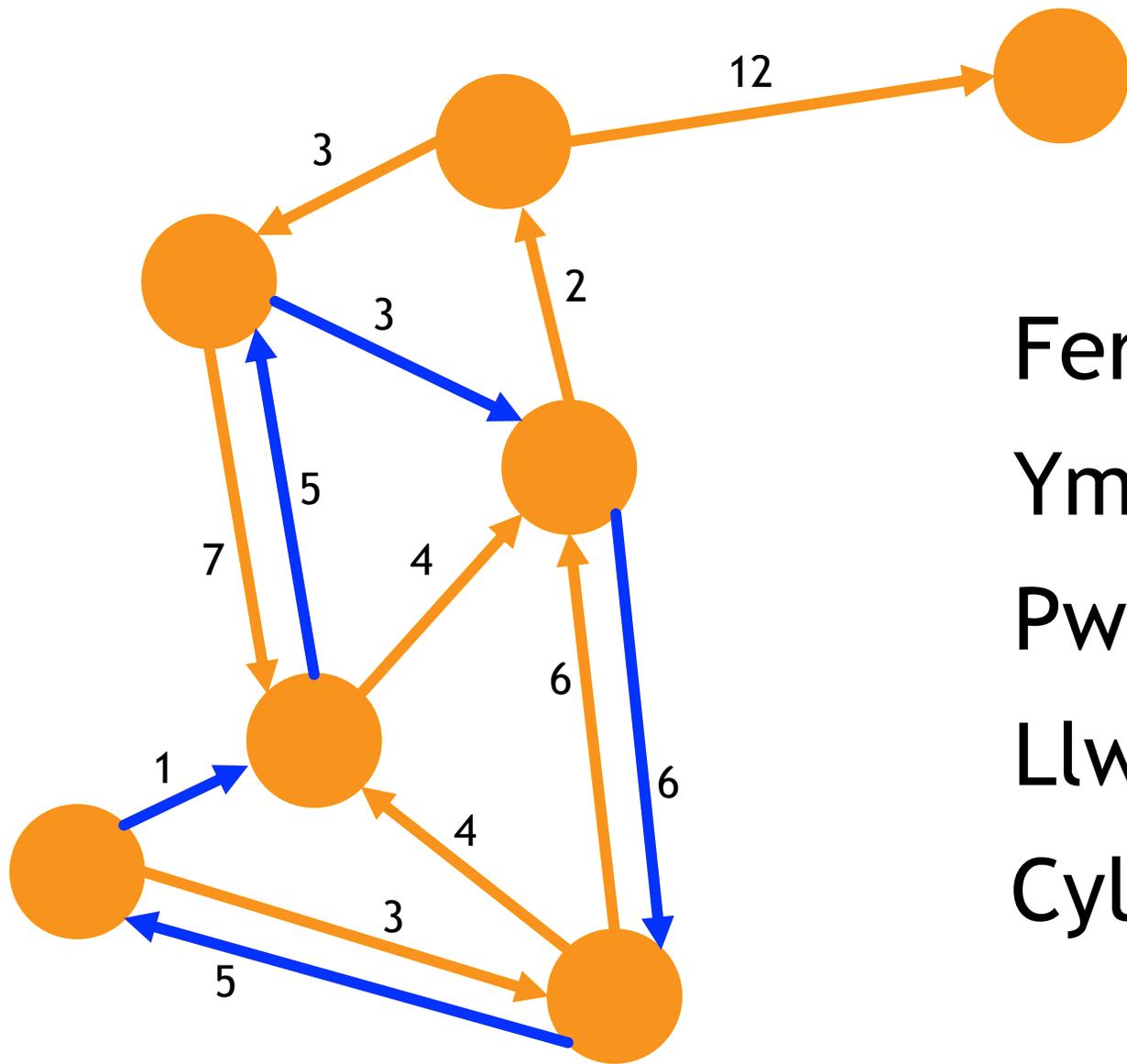
Fertigau

Ymylon

Pwysau



Fertigau
Ymylon
Pwysau
Llwybrau



Fertigau

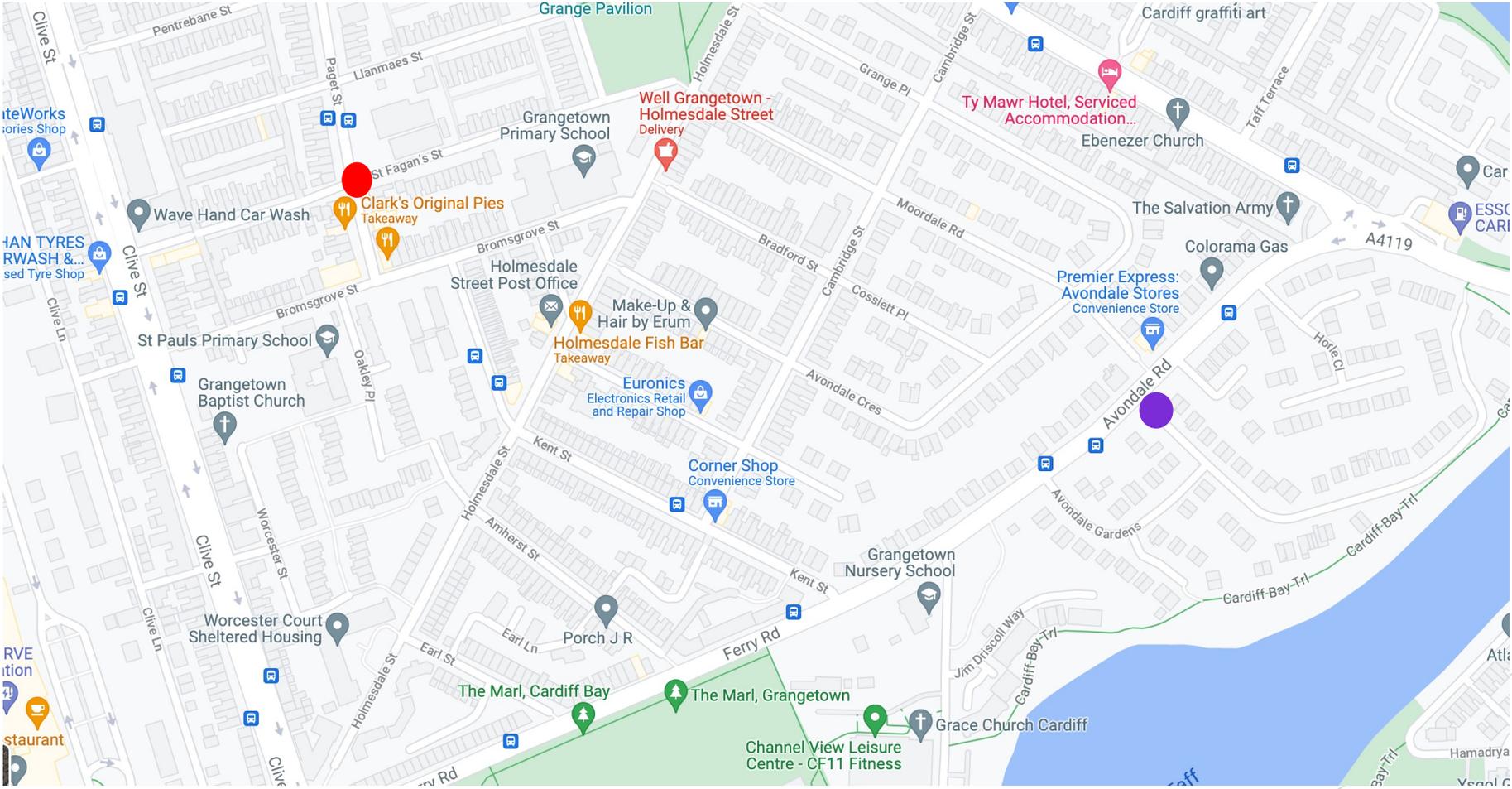
Ymylon

Pwysau

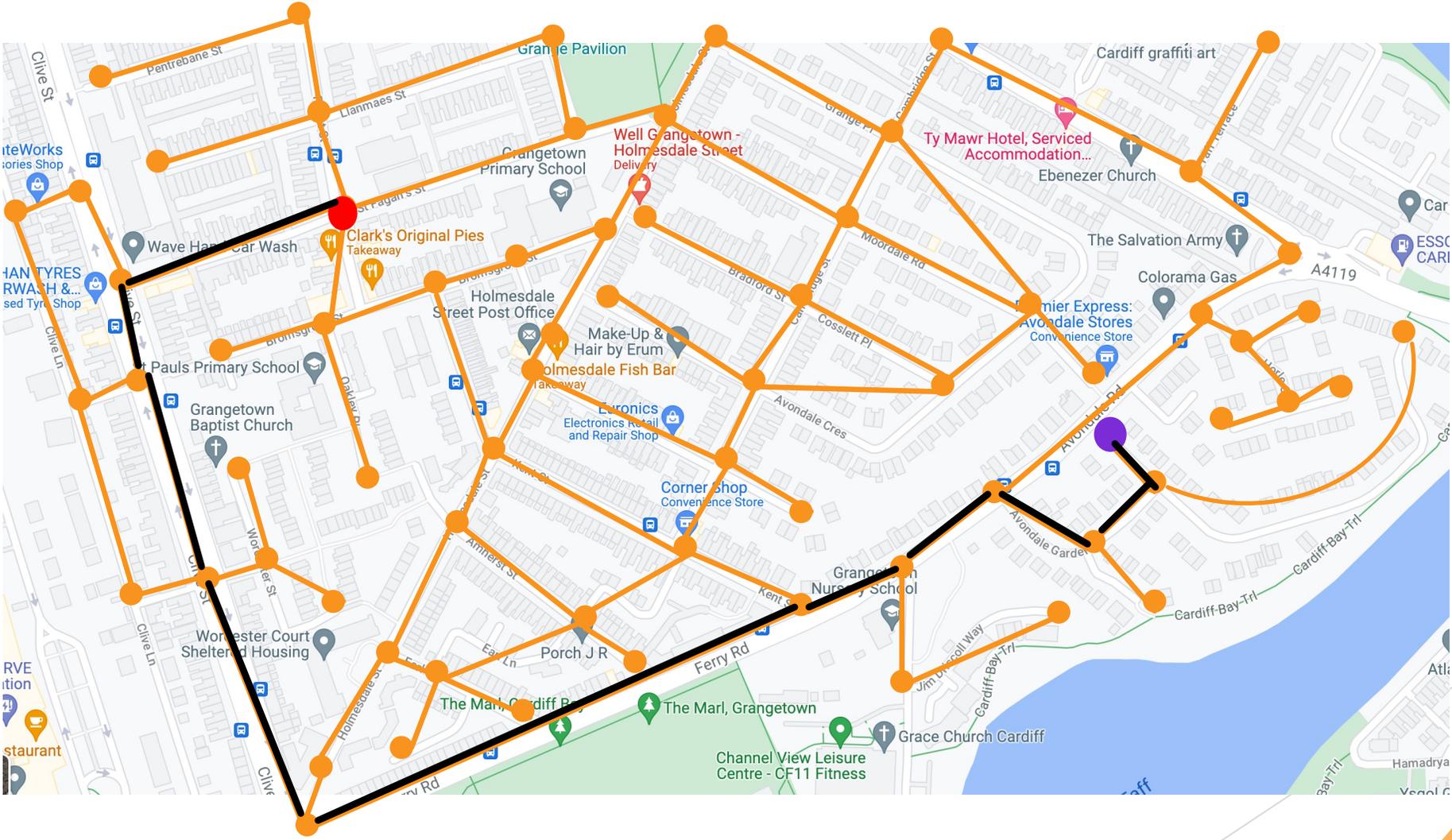
Llwybrau

Cylchlwybrau

Problem Llwybrau Lleiaf



Problem Llwybrau Lleiaf



Problem Llwybrau Lleiaf

Pryd gafodd hwn ei ddarganfod / astudio cyntaf?

A - tua 3000 b.c.

B - 1501

C - 1956

Problem Toriad Lleiaf



Problem Toriad Lleiaf



Problem Toriad Lleiaf

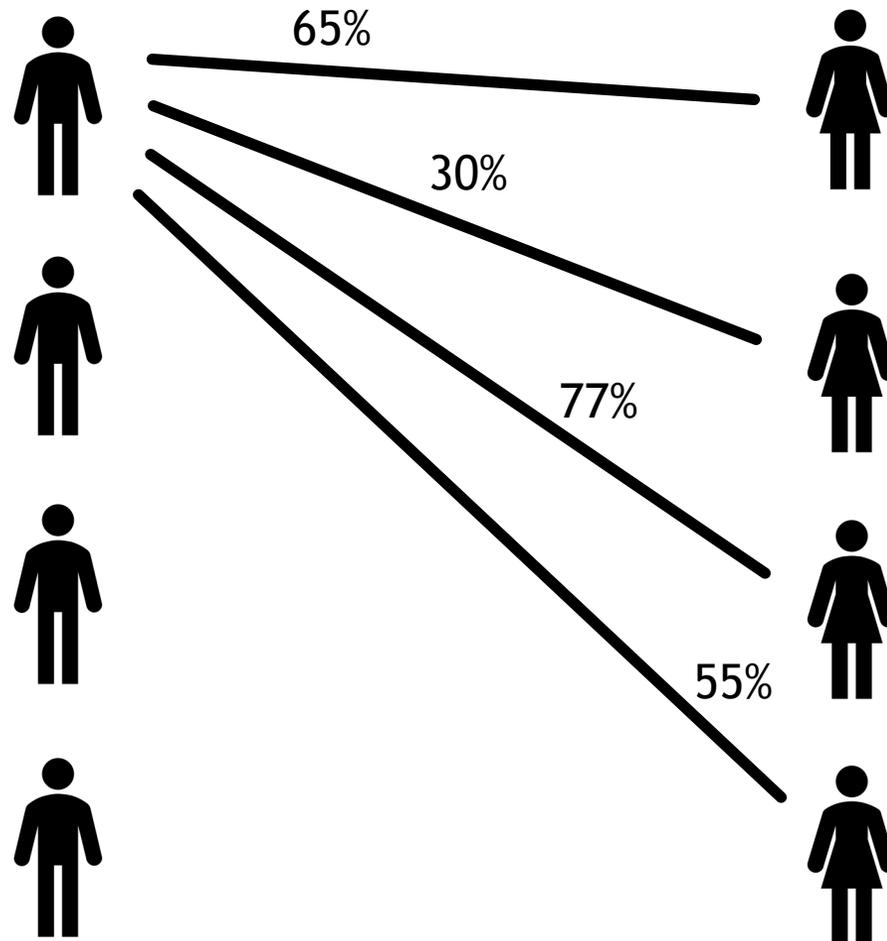
Ym mha rhyfel cafodd hwn ei datblygu a'i ddefnyddio?

A - Y Chwildro Ffrengig (1789-1801)

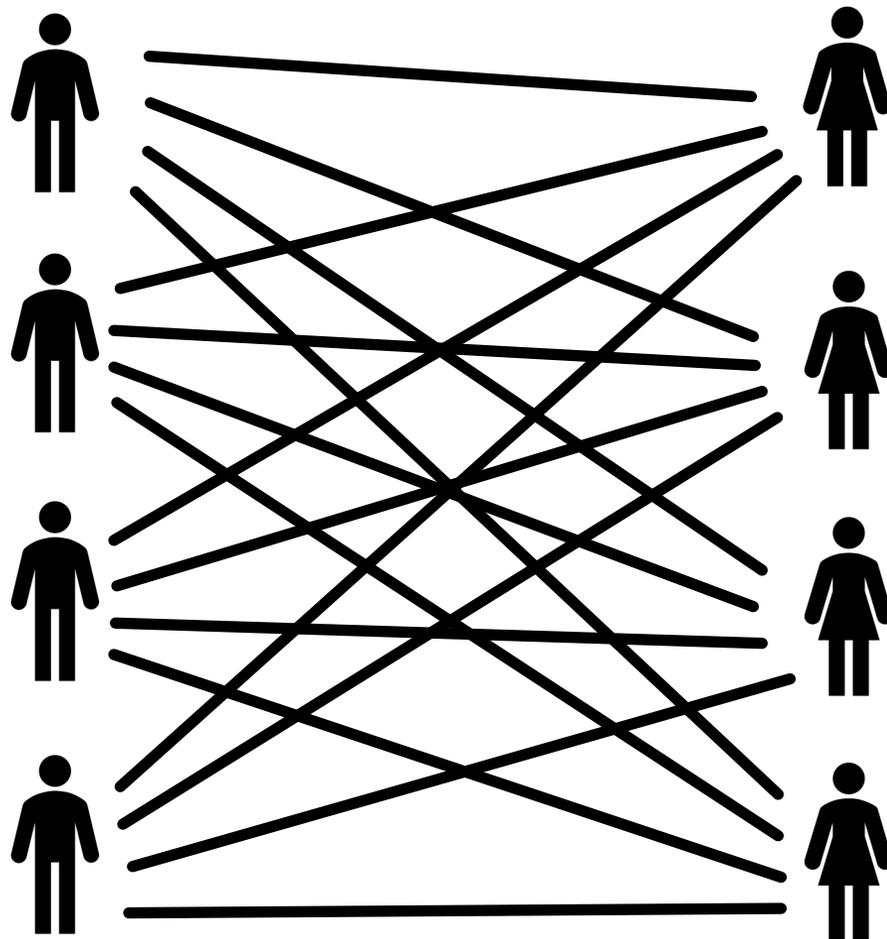
B - Y Rhyfel Crimea (1853-1856)

C - Y Rhyfel Oer (1947-1991)

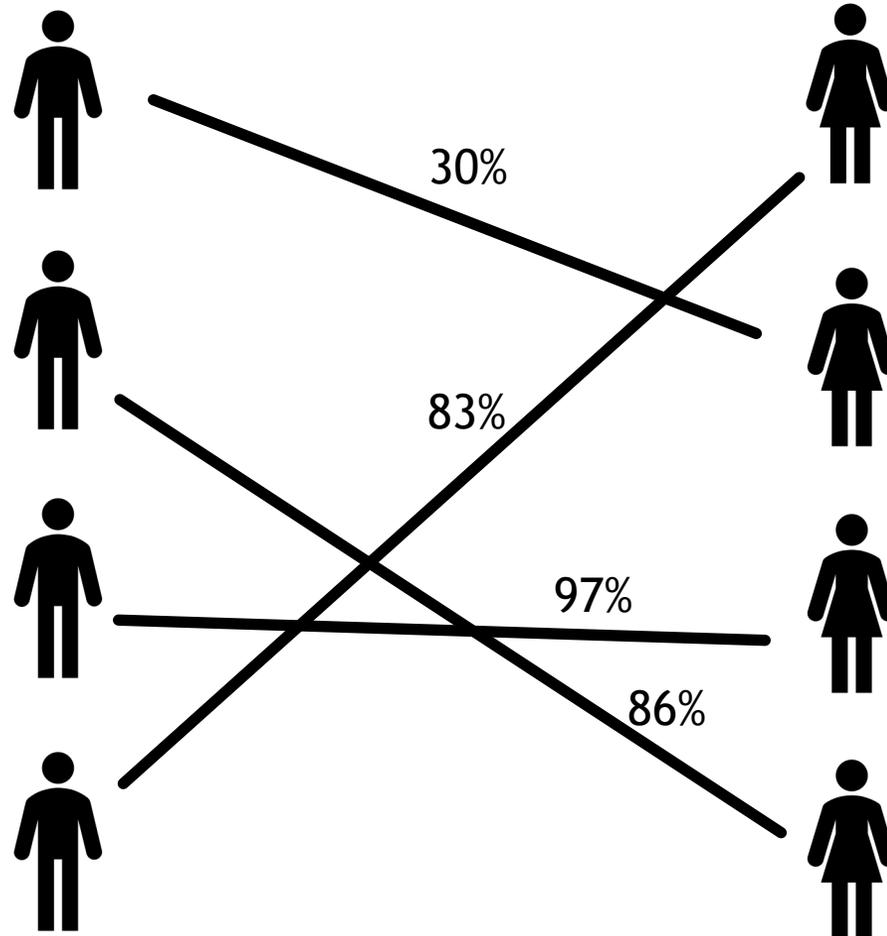
Cydweddiad Mwyaf



Cydweddiad Mwyaf



Cydweddiad Mwyaf



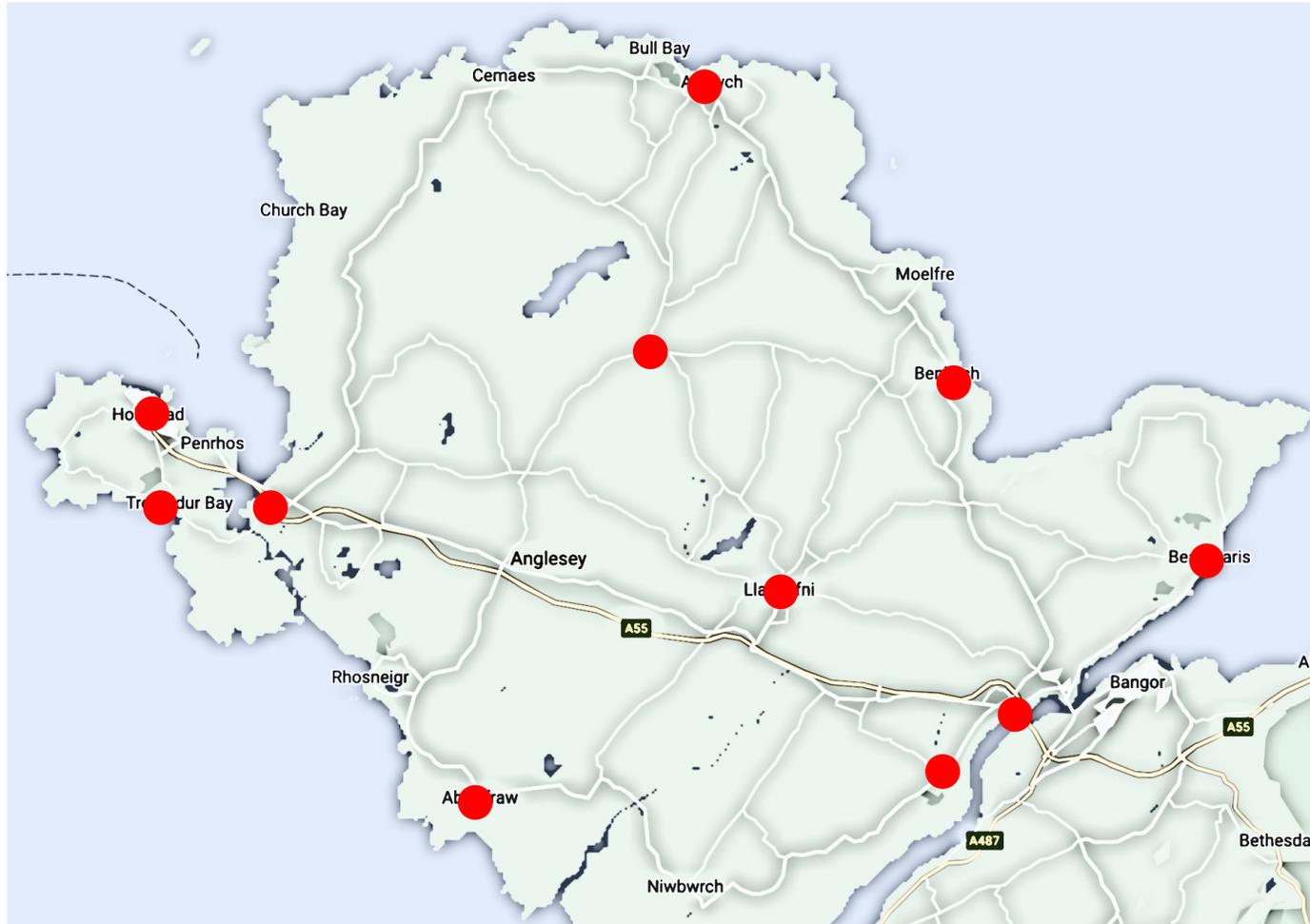
Cydweddiad Mwyaf

Lle cafodd hwn ei ystyried yn gyntaf?

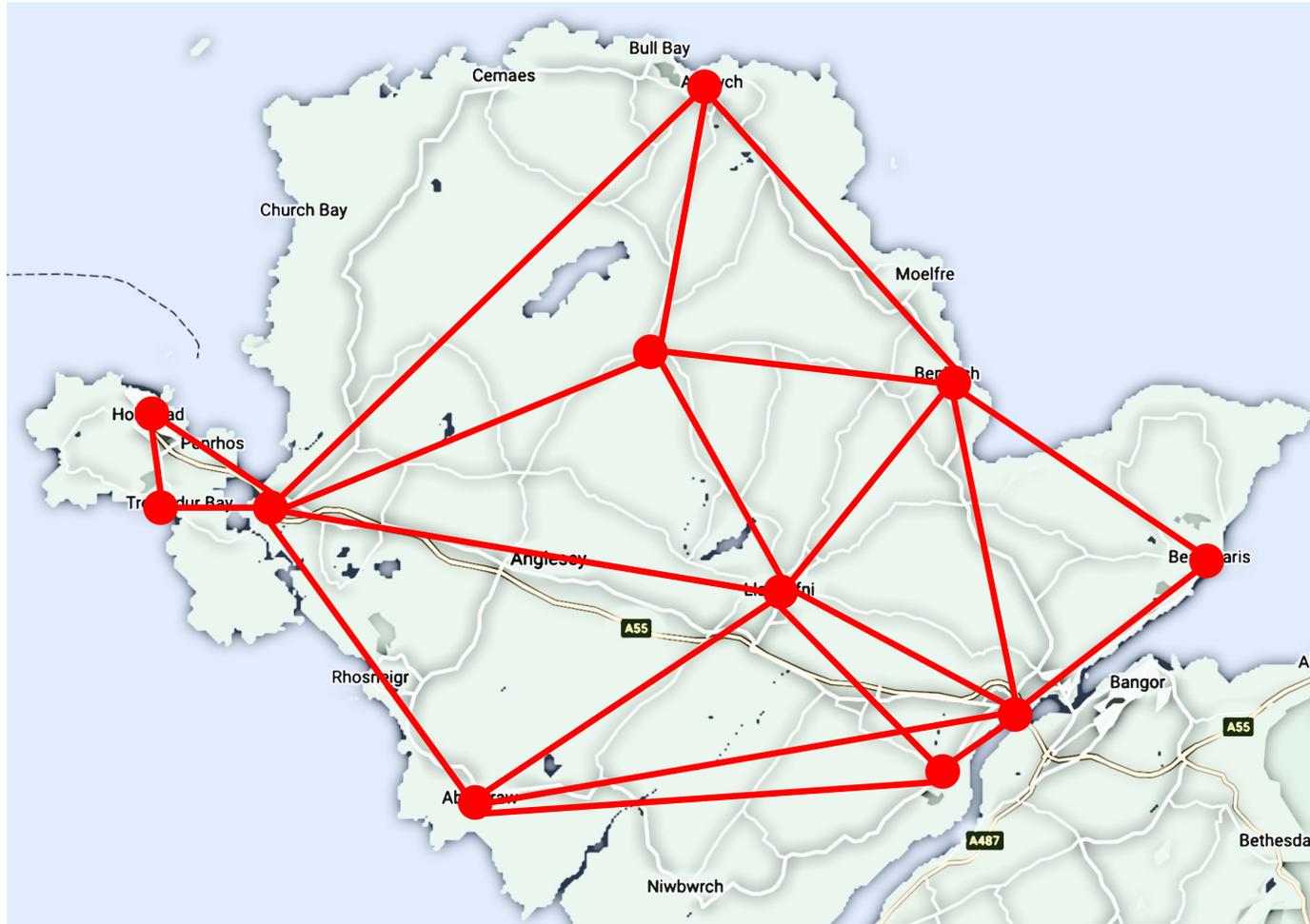
- A - Cyplu ceffylau a jocis yn yr Olympics Montreal (1976)
- B - I sicrhau bod digon o ddoctoriaid ym mhob ysbyty (1900)
- C - Cyplu cystadleuwyr ar *Love Island* (2015)

Cylchlwybrau Hamiltonaidd

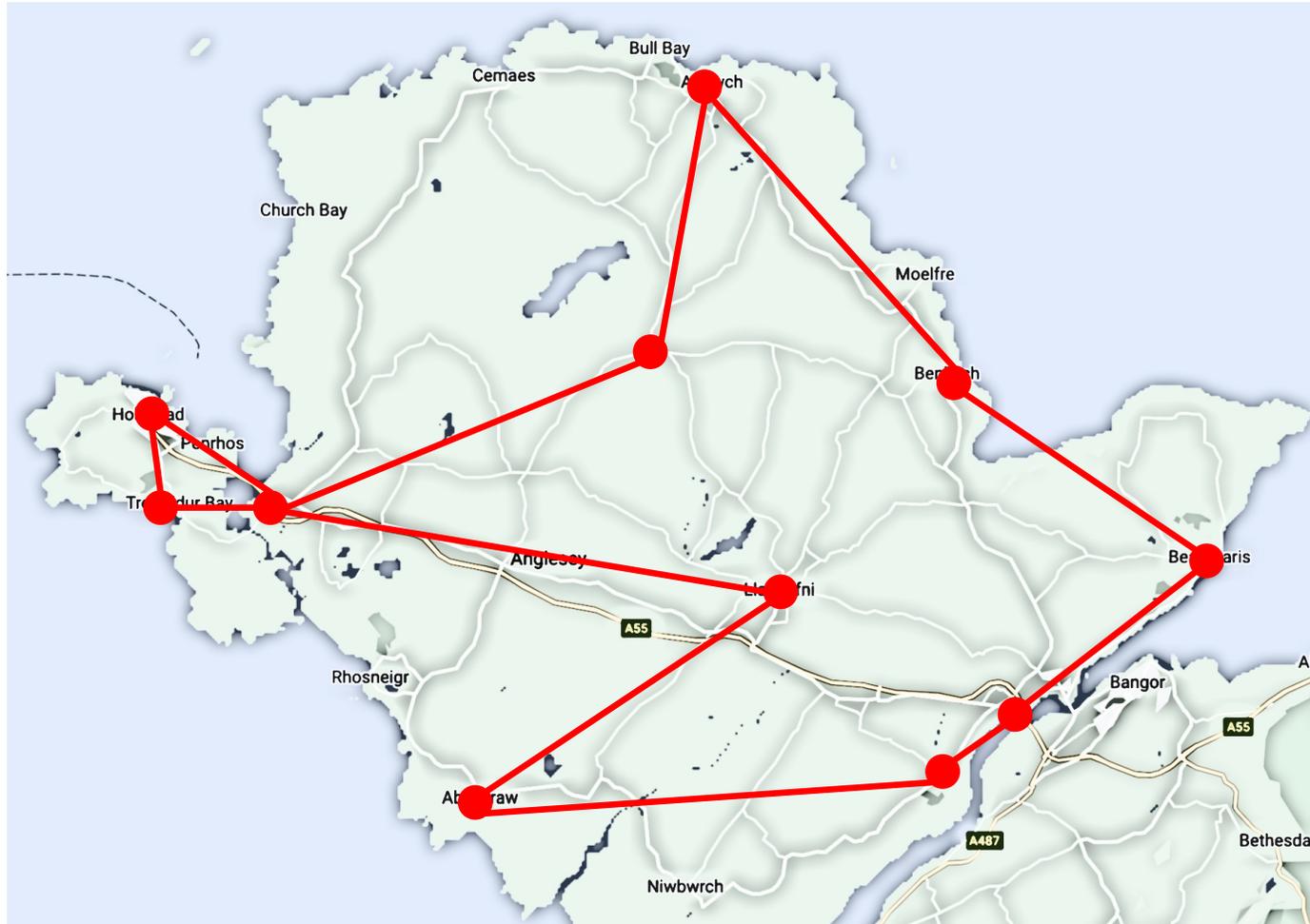
(Travelling Salesman)



Cylchlwybrau Hamiltonaidd (Travelling Salesman)



Cylchlwybrau Hamiltonaidd (Travelling Salesman)



Cylchlwybrau Hamiltonaidd

(Travelling Salesman)

Beth ysbrydolodd y broblem yma?

A - Y gwasanaeth bost

B - Tegan i blant

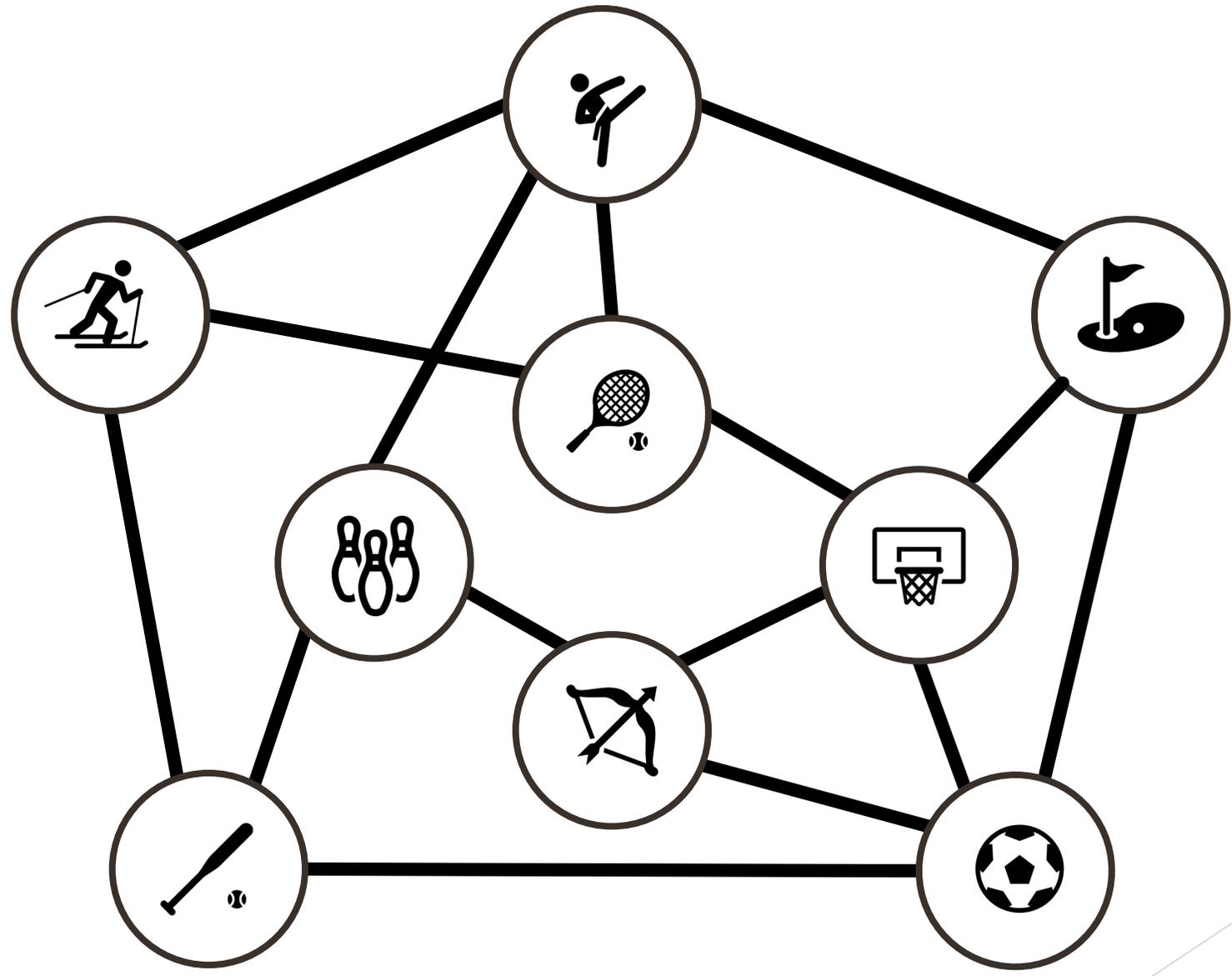
C - Adeiladu *microchips*

Cylchlwybrau Hamiltonaidd

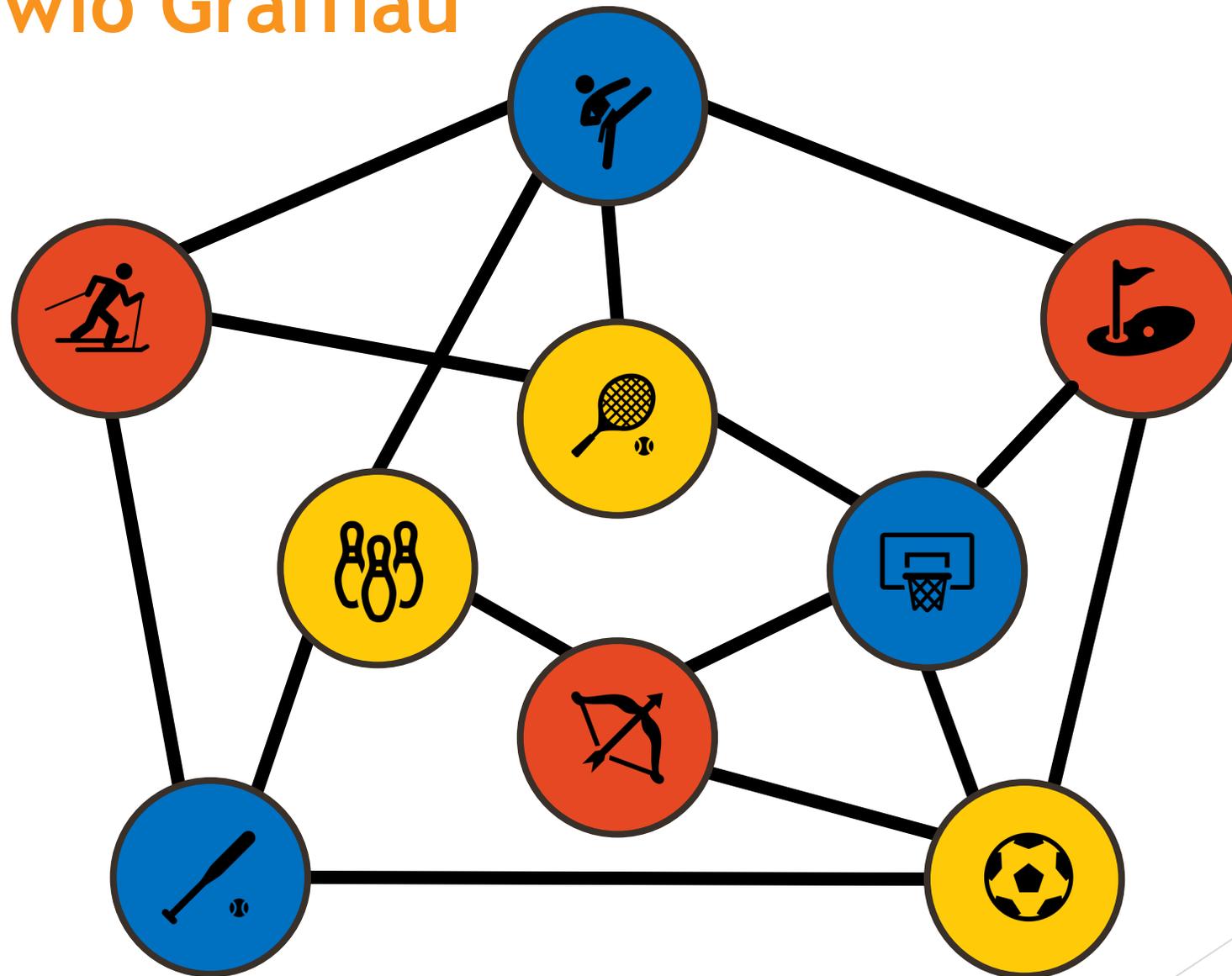
(Travelling Salesman)



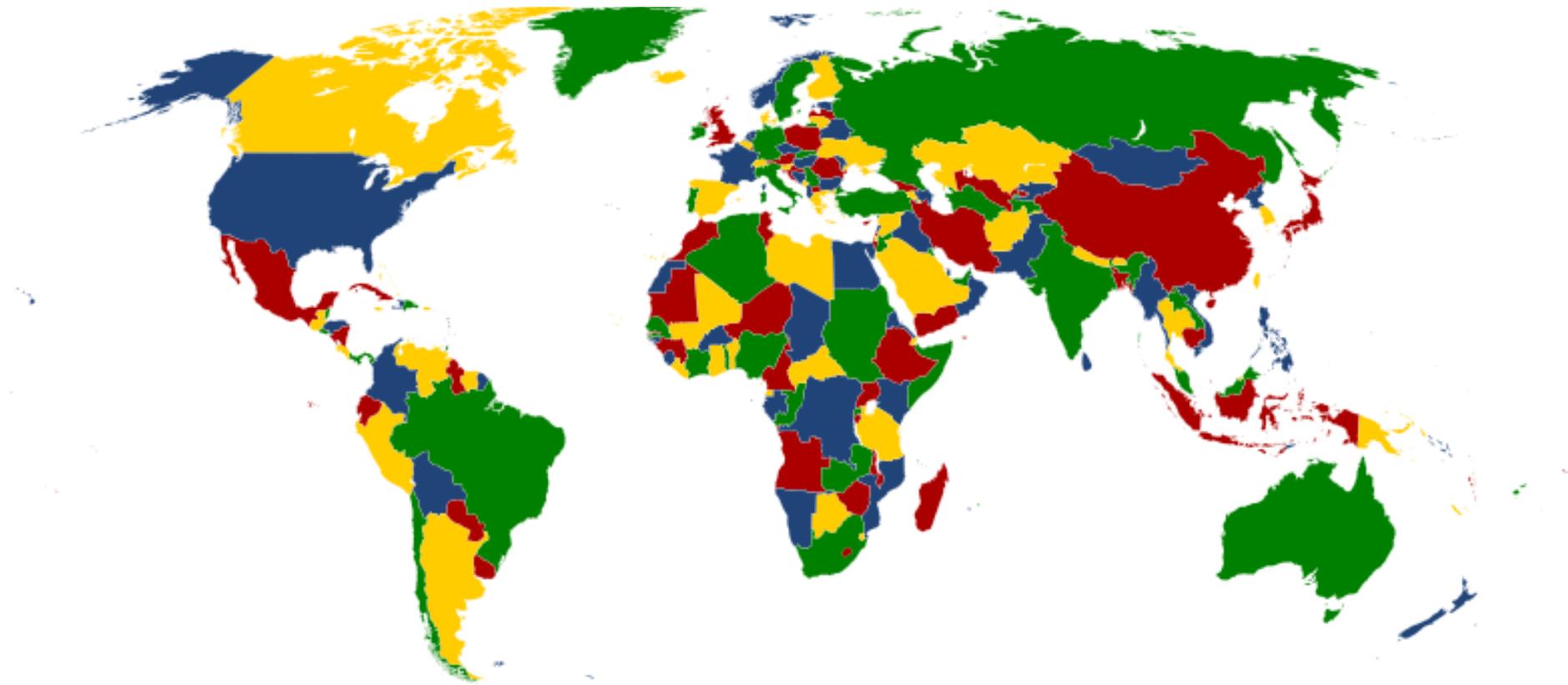
									
						X	X	X	X
			X		X			X	
		X		X	X		X		
			X			X		X	X
		X	X			X			
	X			X	X				
	X		X					X	
	X	X		X			X		X
	X			X				X	



Lliwio Graffiau



Lliwio Graffiau



Aseinio athrawon i dosbarthau gwahanol.

A - Llwybr Lleiaf

B - Toriad Lleiaf

C - Cydweddiad Mwyaf

D - Cylchlwybr Hamiltonaidd

E - Lliwio Graffiau

Penderfynu pa fyrddau bydd eich gwesteion yn eistedd arnynt mewn priodas.

A - Llwybr Lleiaf

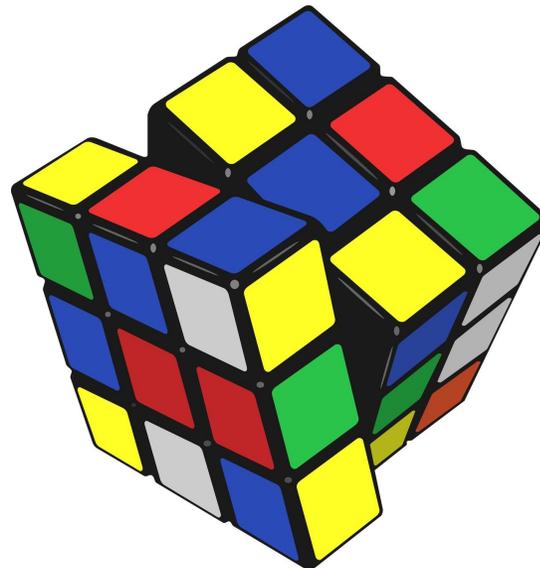
B - Toriad Lleiaf

C - Cydweddiad Mwyaf

D - Cylchlwybr Hamiltonaidd

E - Lliwio Graffiau

Datrys ciwb Rubik.



A - Llwybr Lleiaf

B - Toriad Lleiaf

C - Cydweddiad Mwyaf

D - Cylchlwybr Hamiltonaidd

E - Lliwio Graffiau

Byd go-iawn



Problem
mathemategol

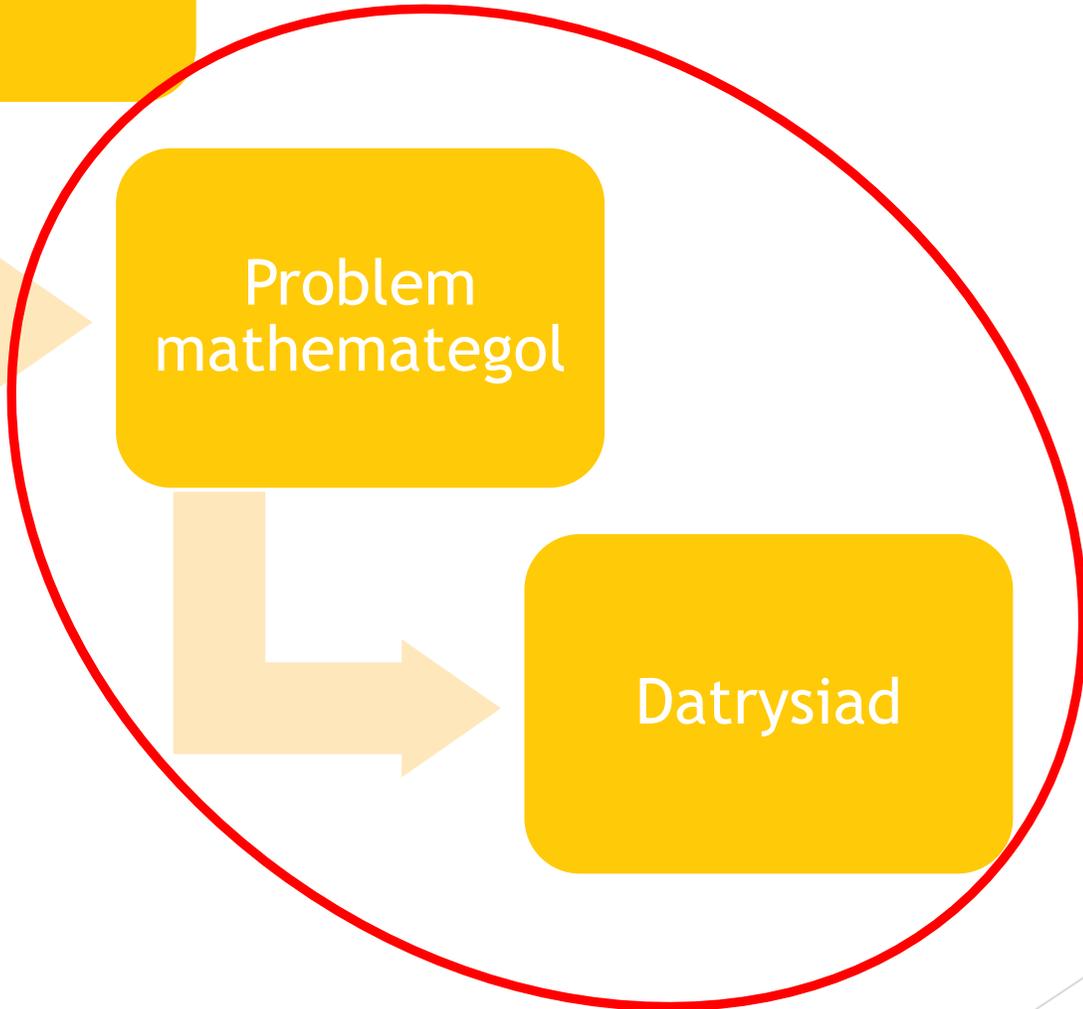
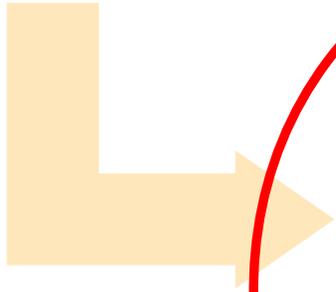


Datrysiad

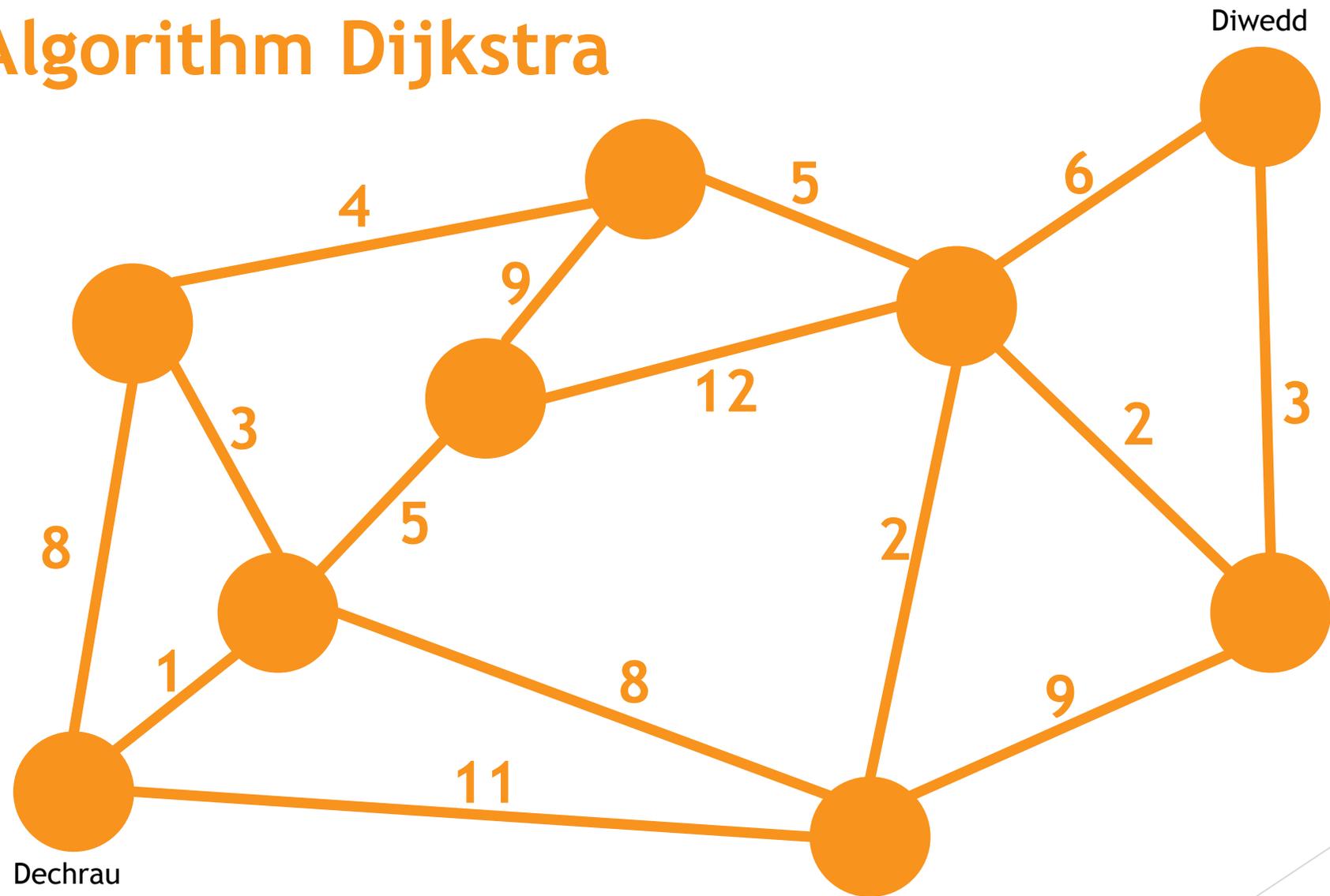
Byd go-iawn

Problem
mathemategol

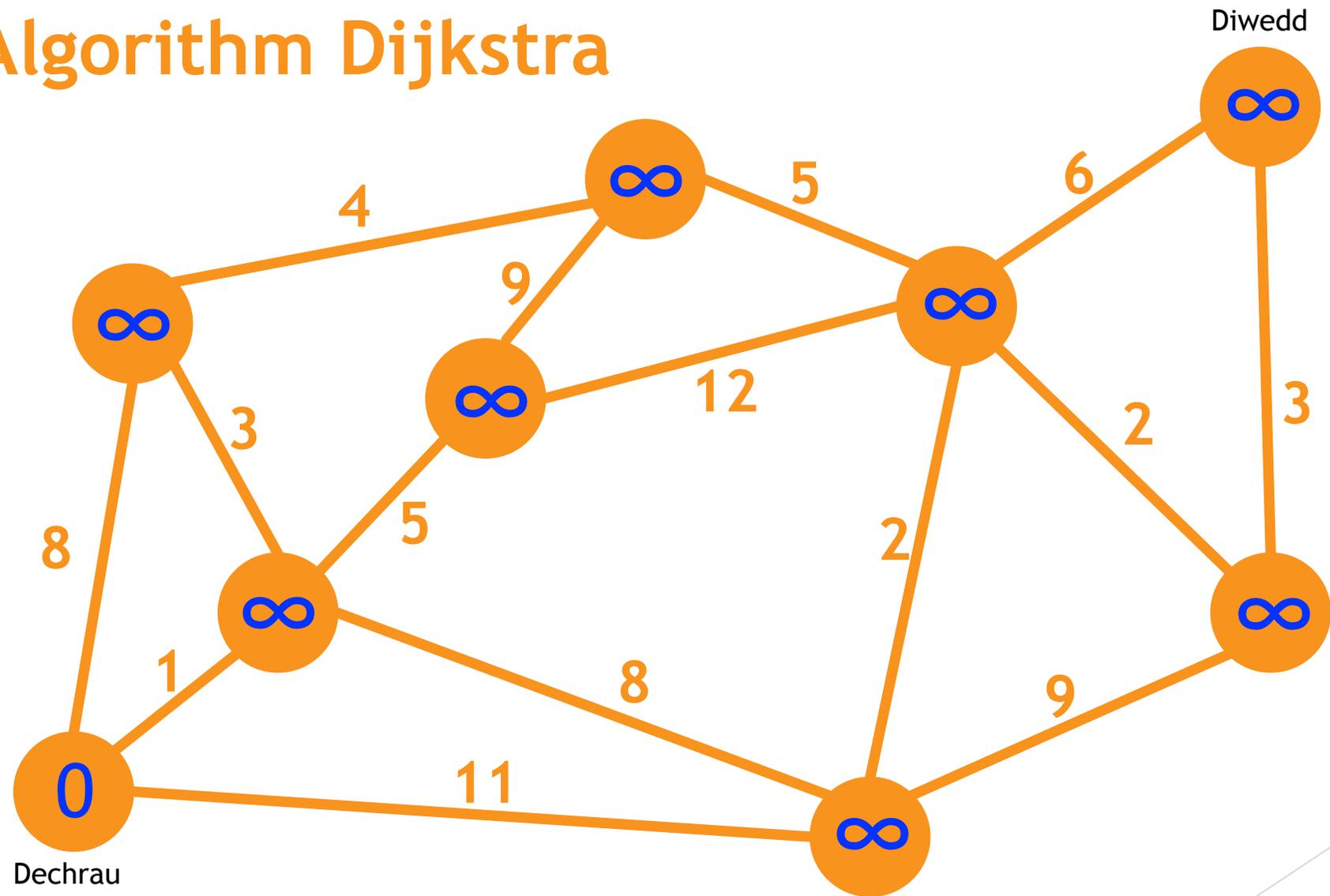
Datrysiad



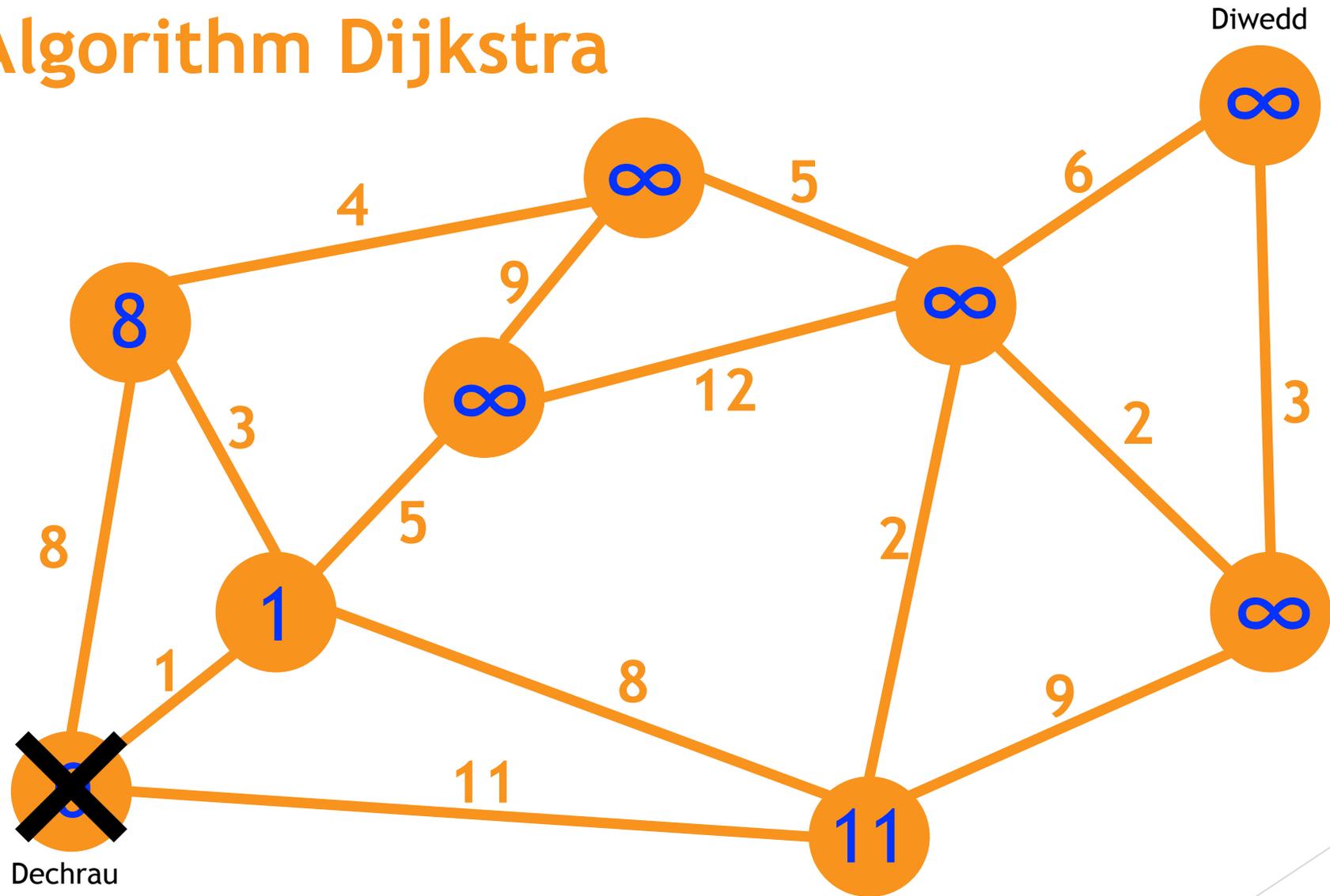
Algorithm Dijkstra



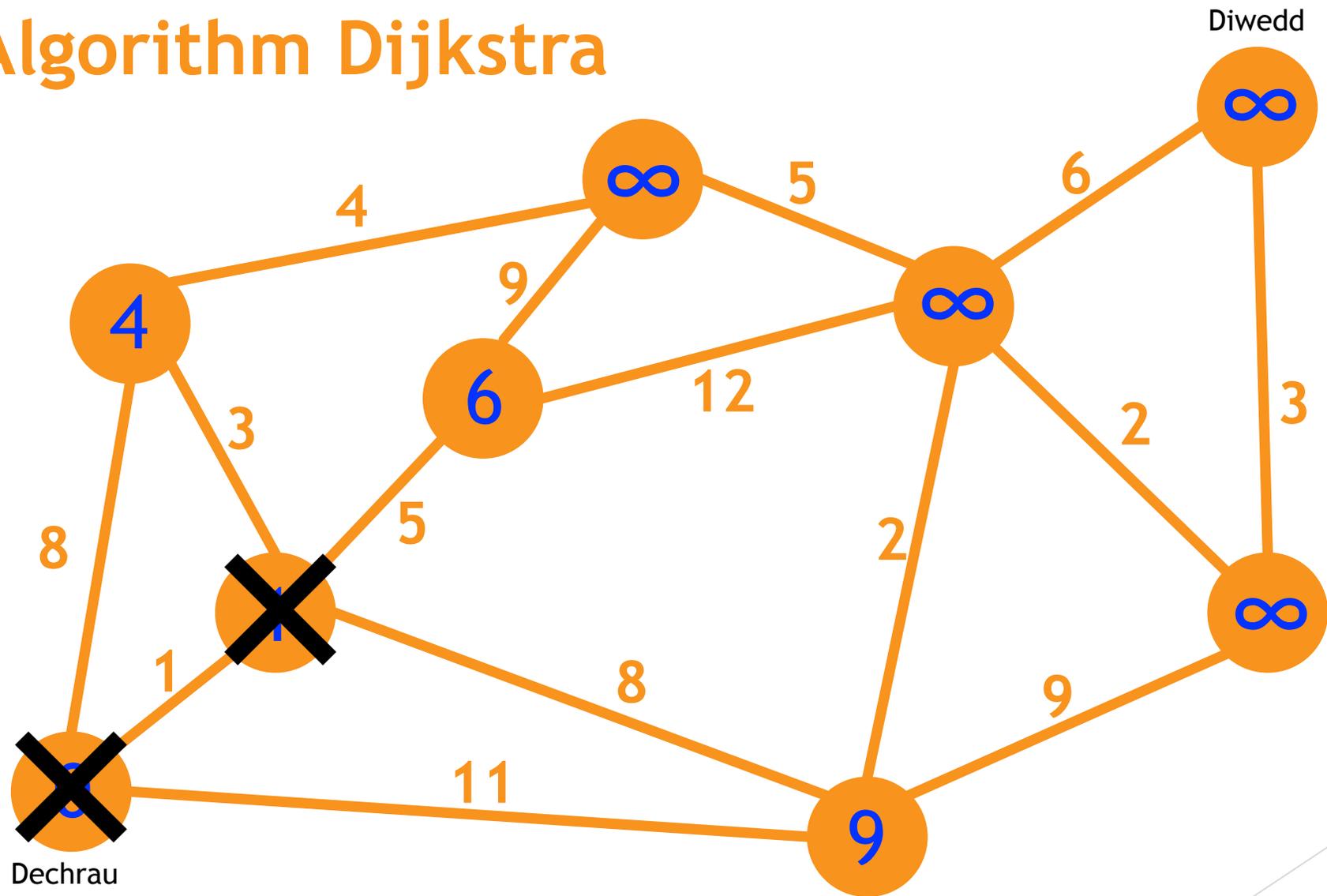
Algorithm Dijkstra



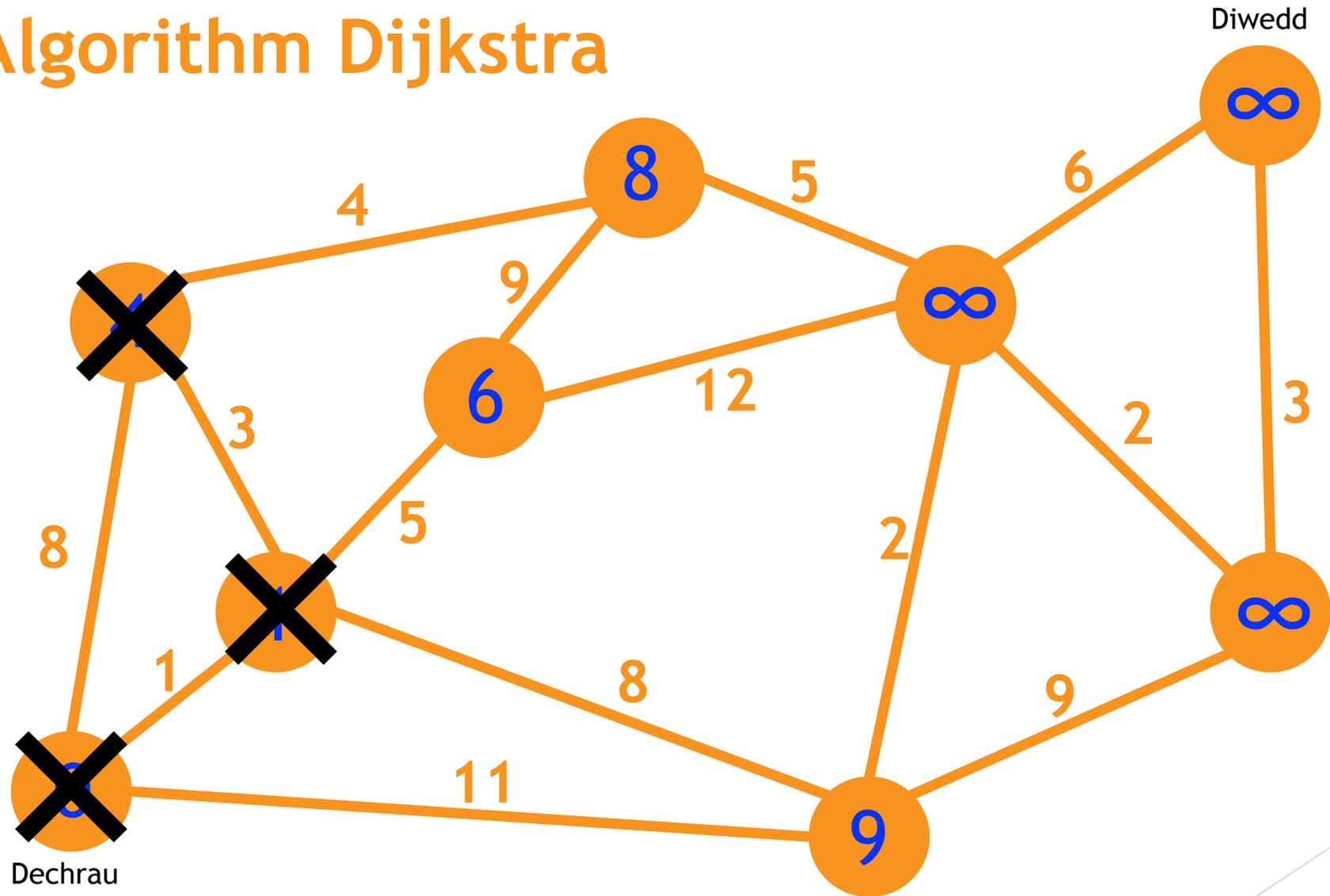
Algorithm Dijkstra



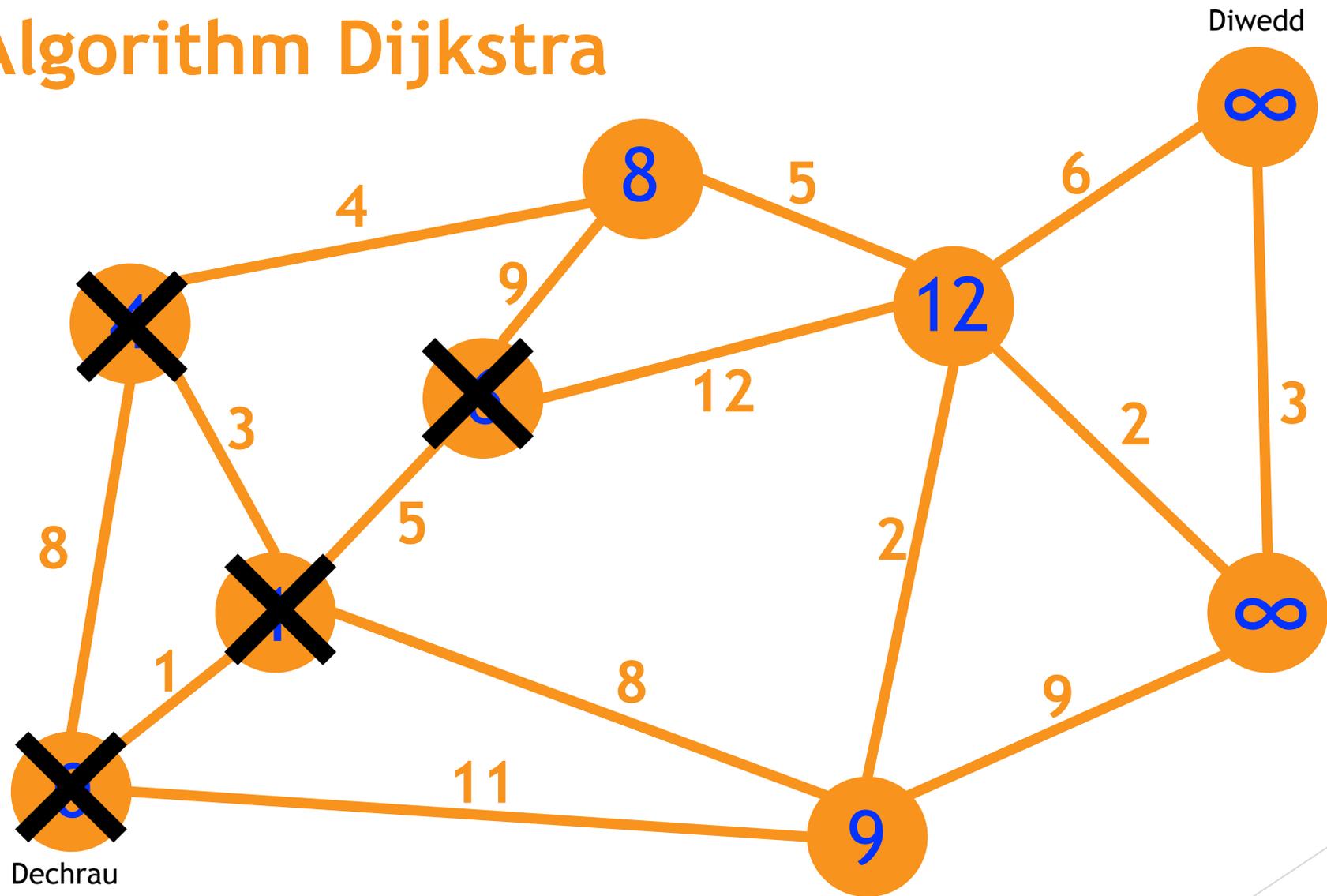
Algorithm Dijkstra



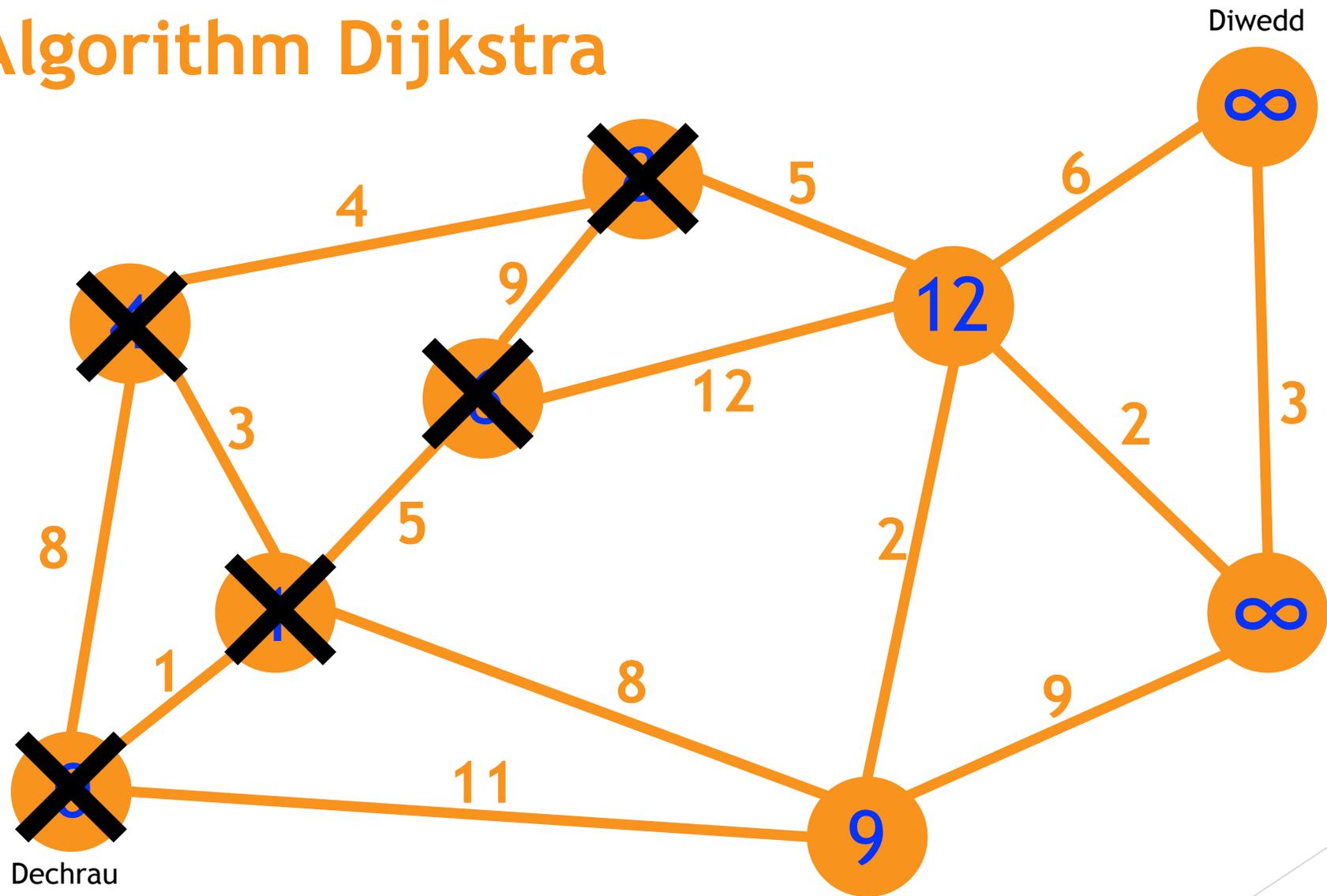
Algorithm Dijkstra



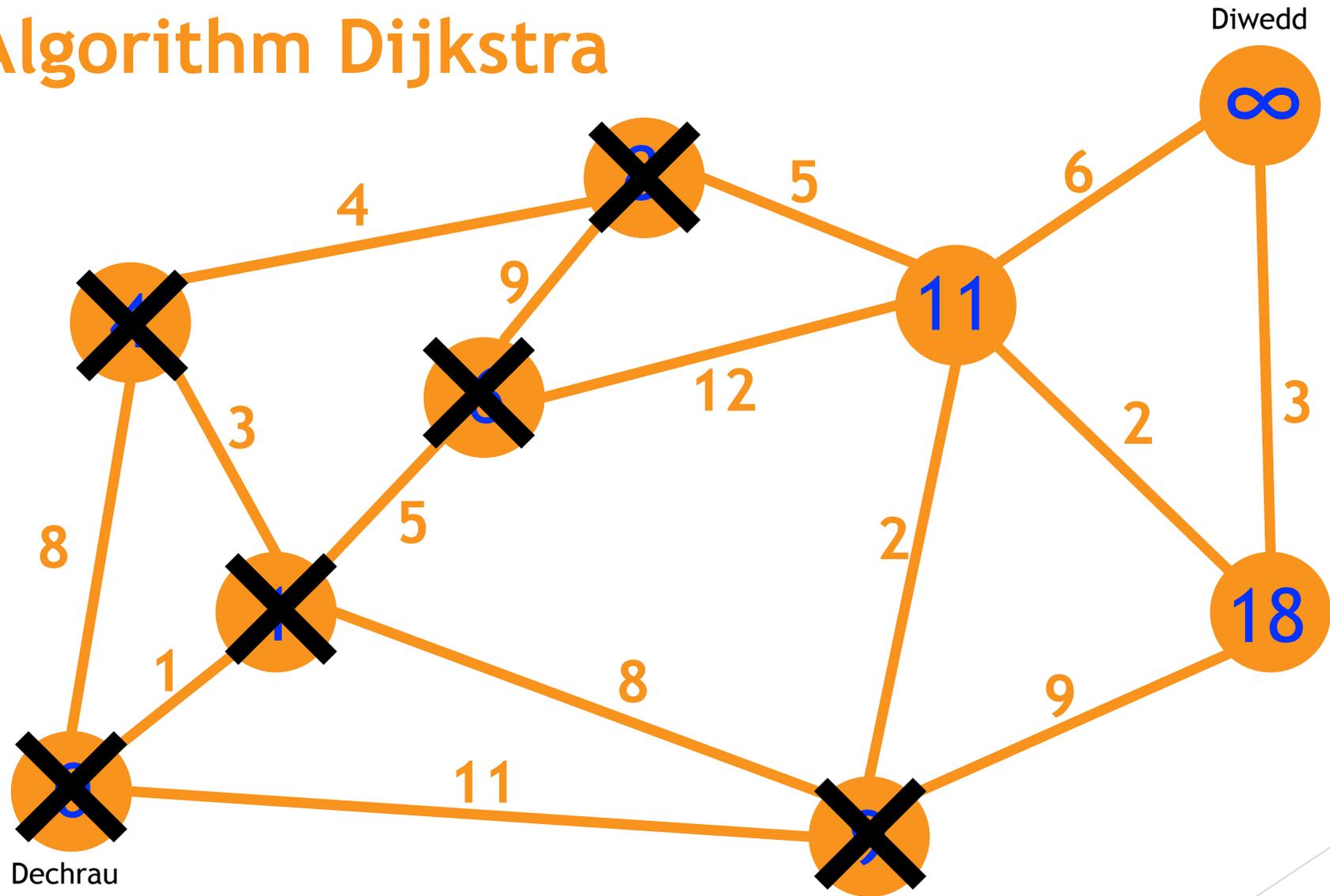
Algorithm Dijkstra



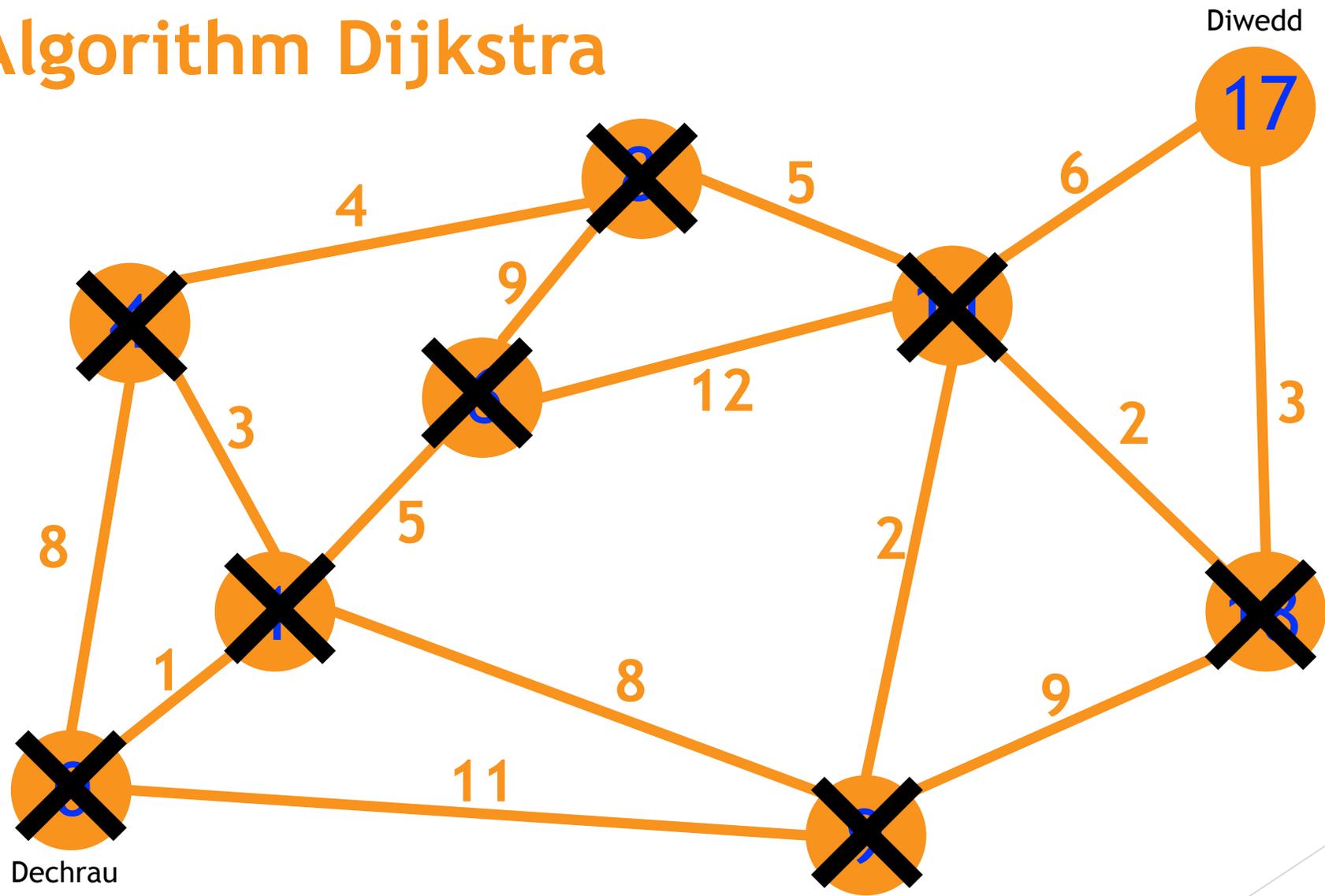
Algorithm Dijkstra



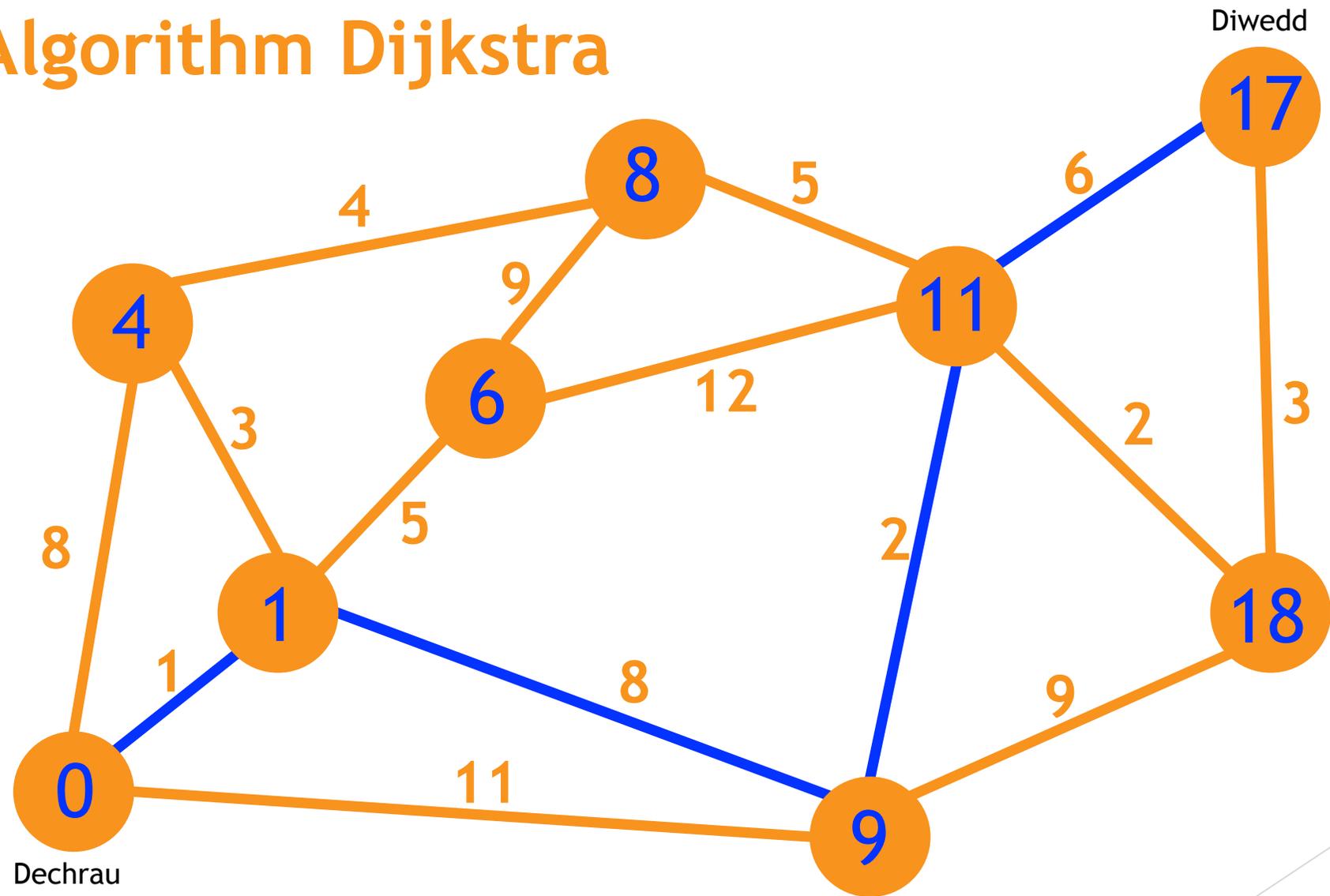
Algorithm Dijkstra



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