

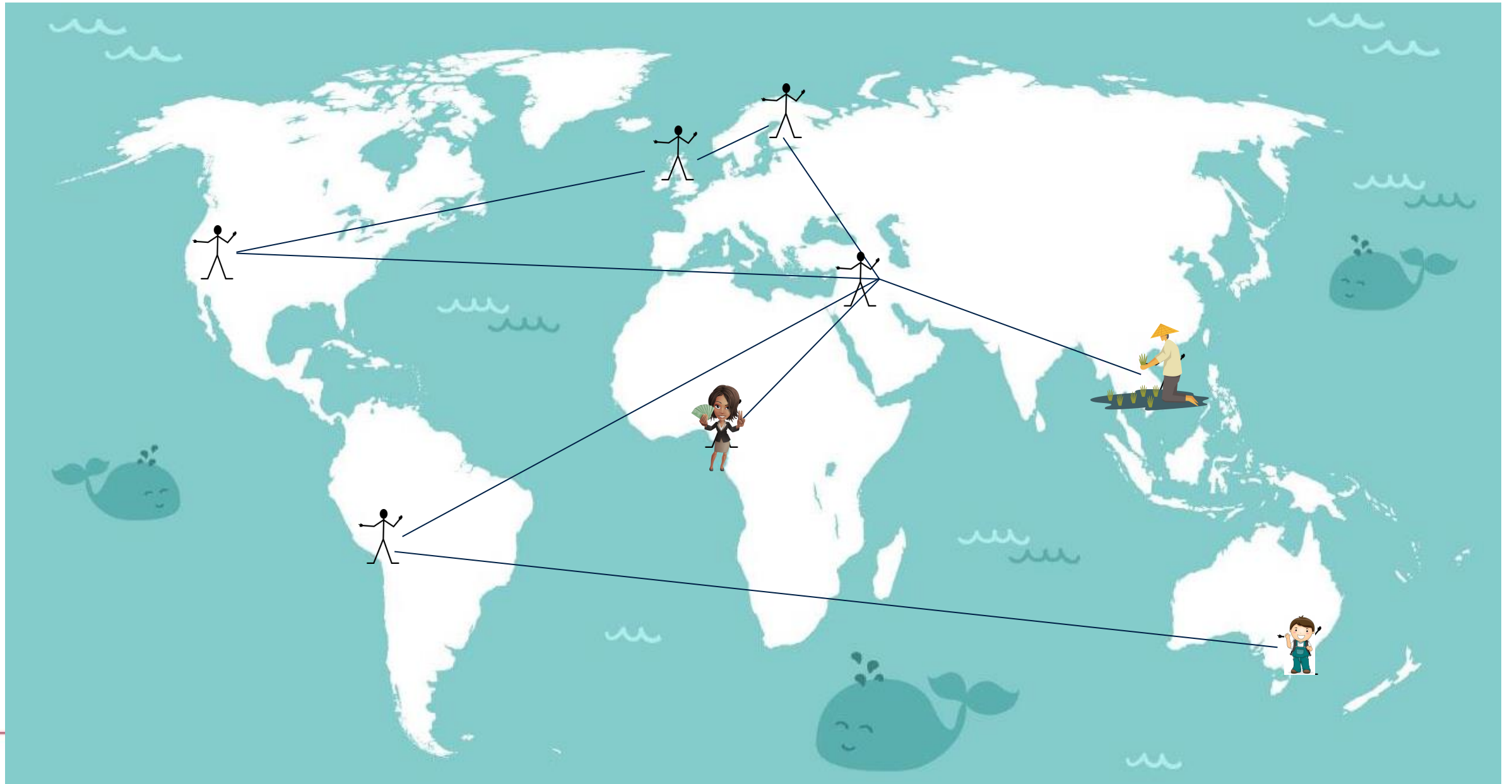


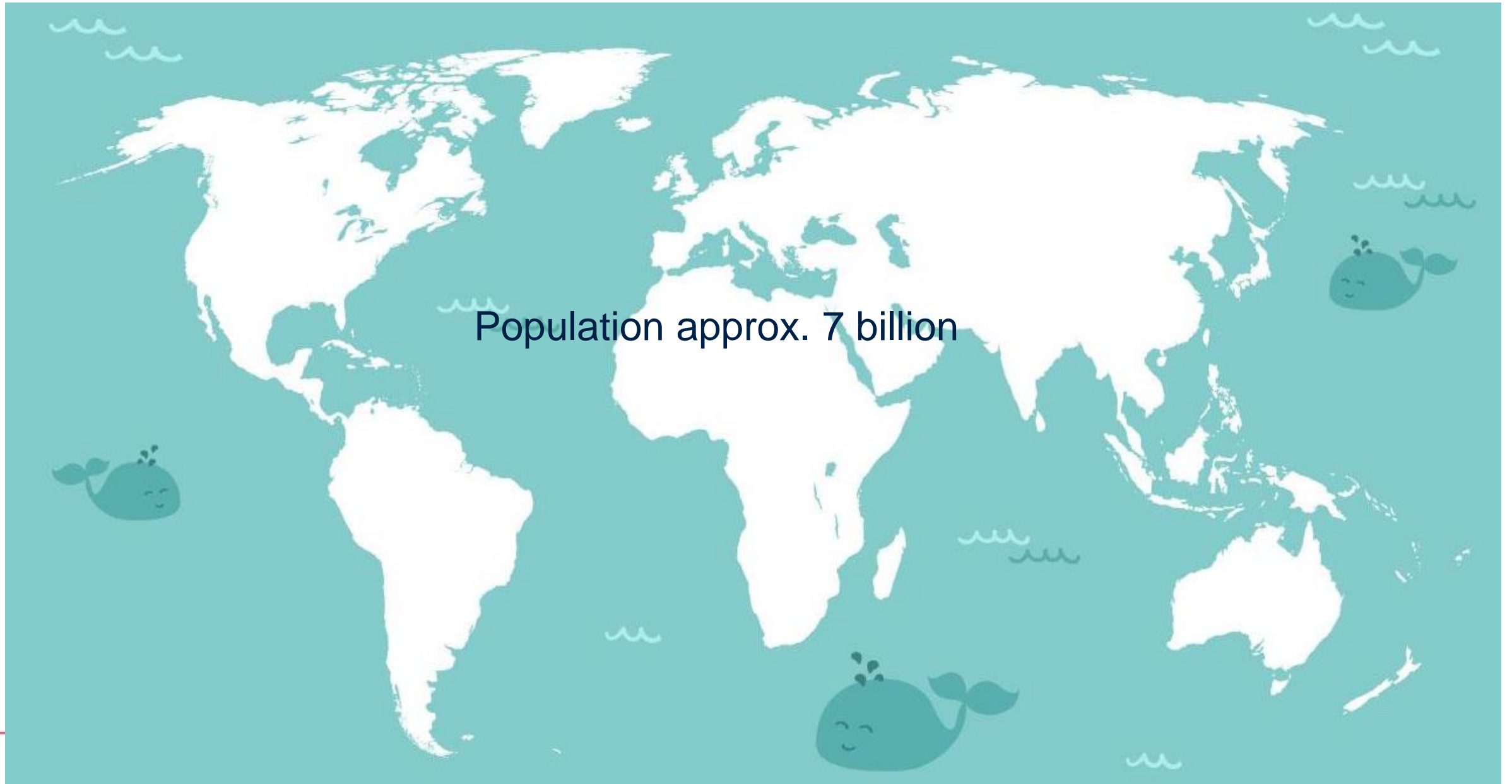
**Advanced Mathematics
Support Programme®**

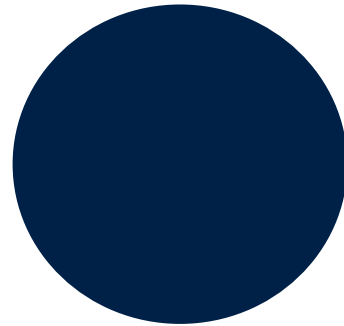


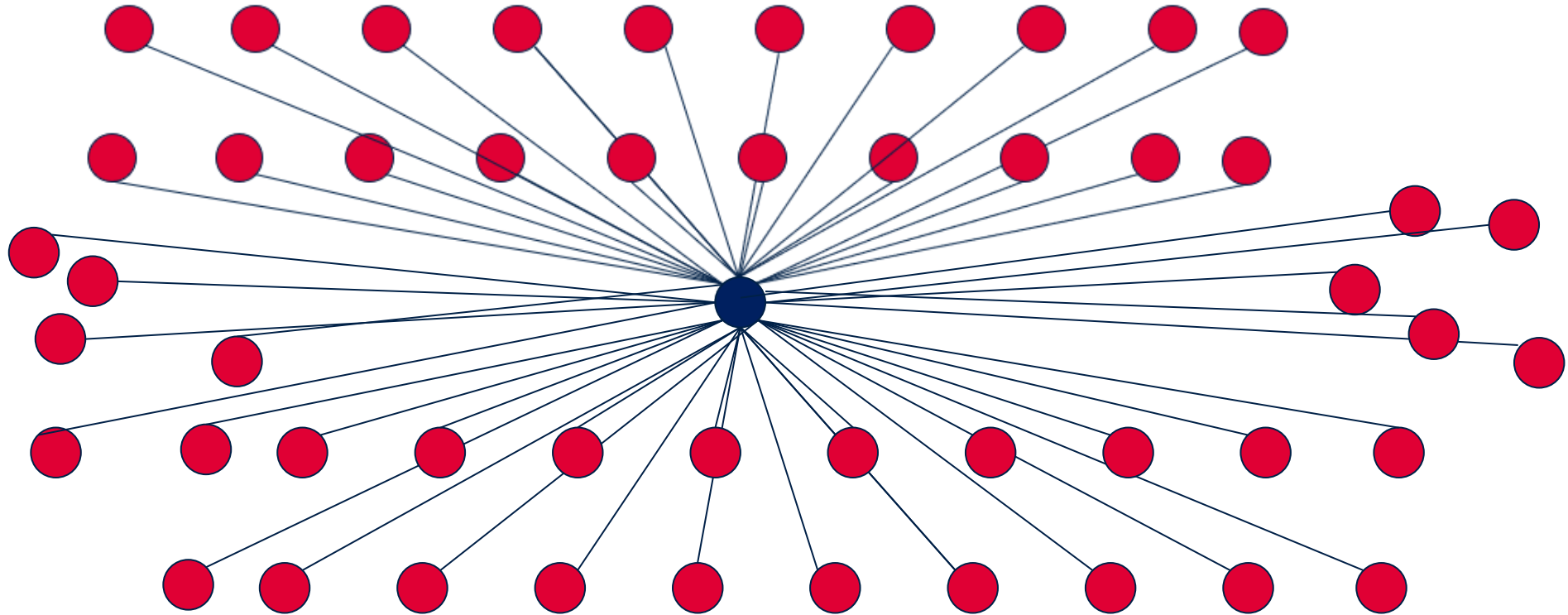
The Connected World



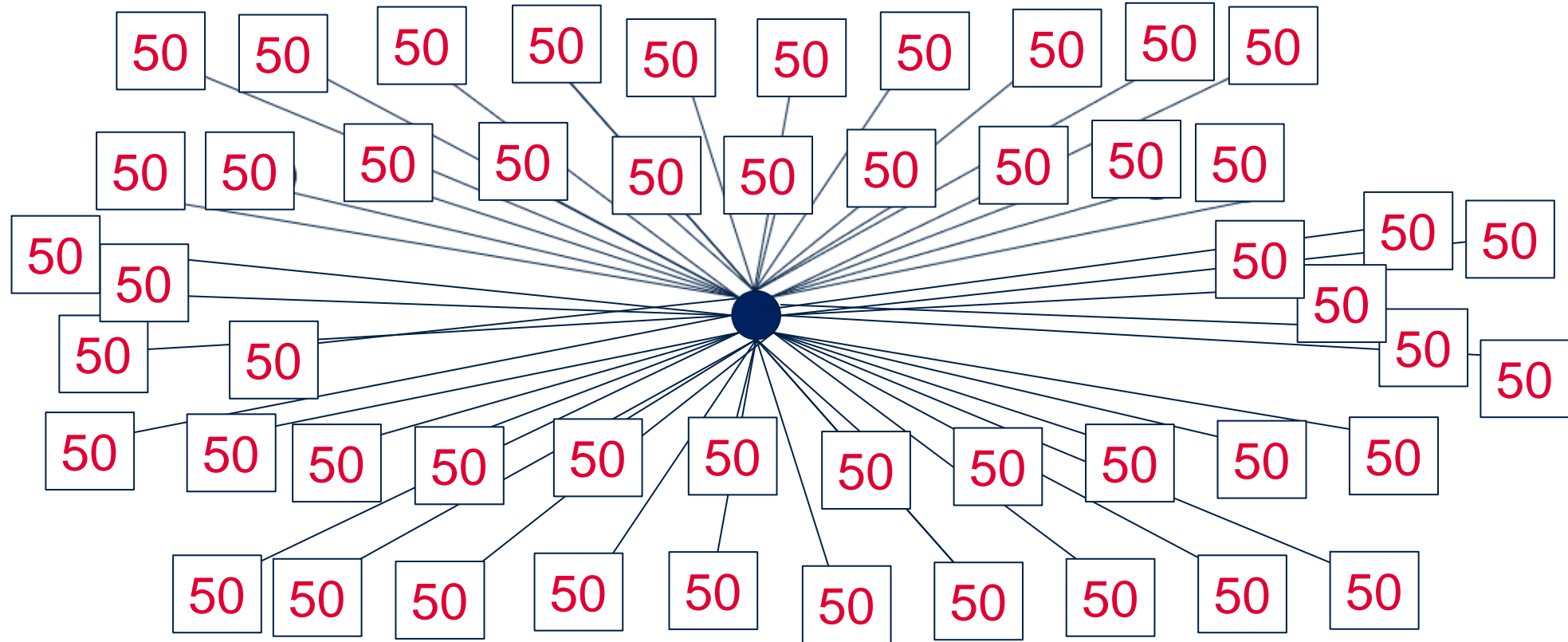








You & your 50 friends



Separation	Number of people
1	50

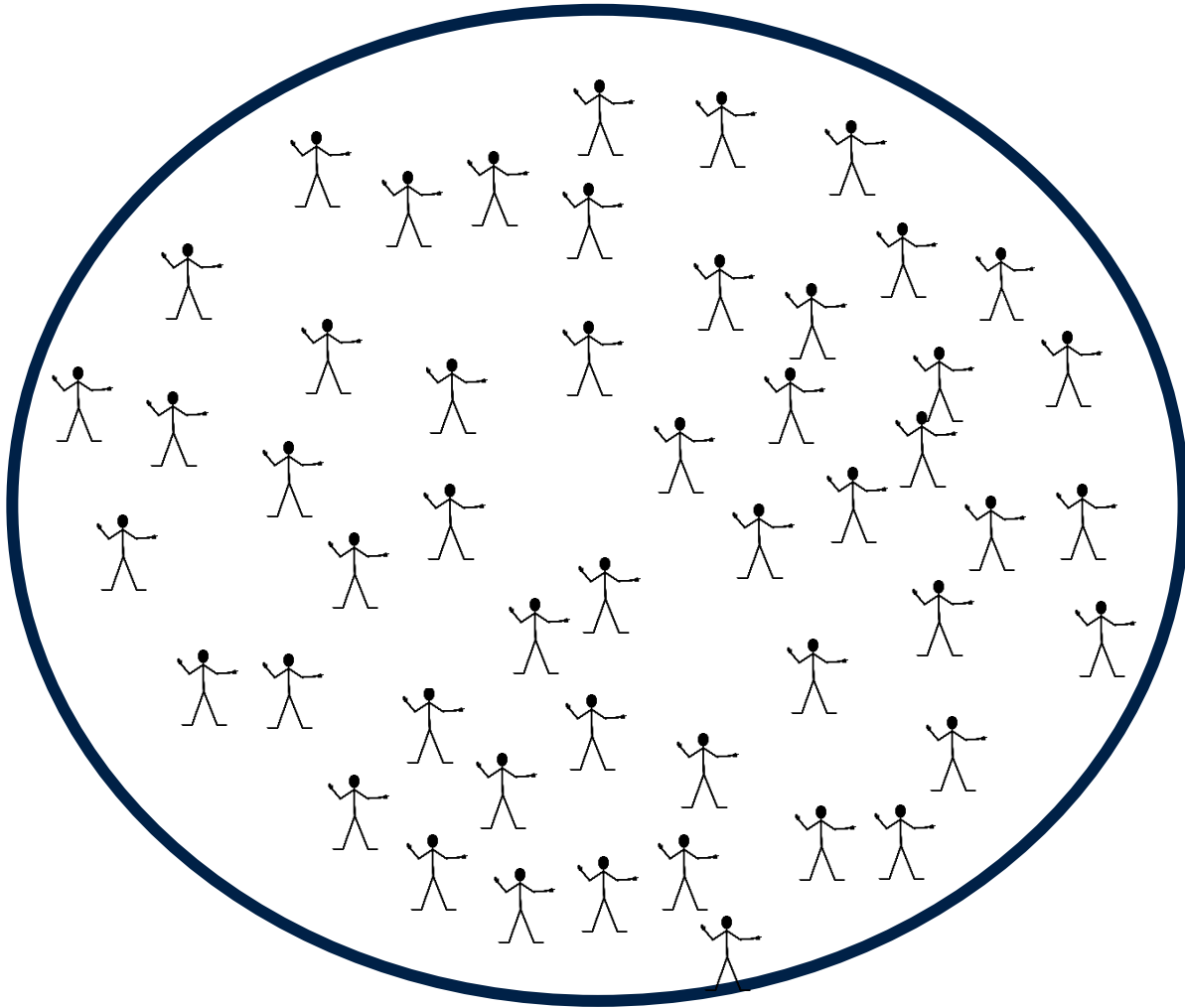
Separation	Number of people
1	50
2	2 500

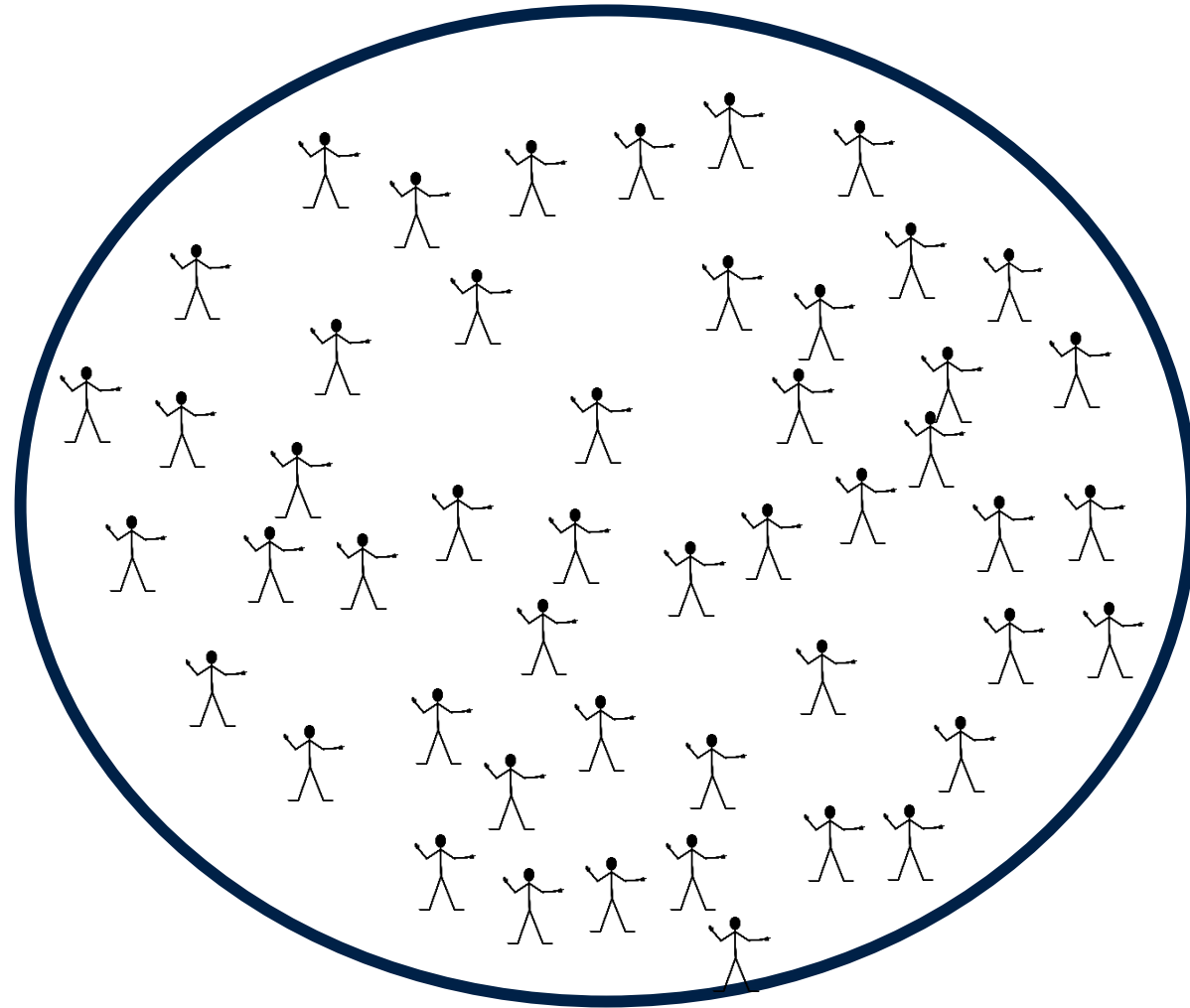
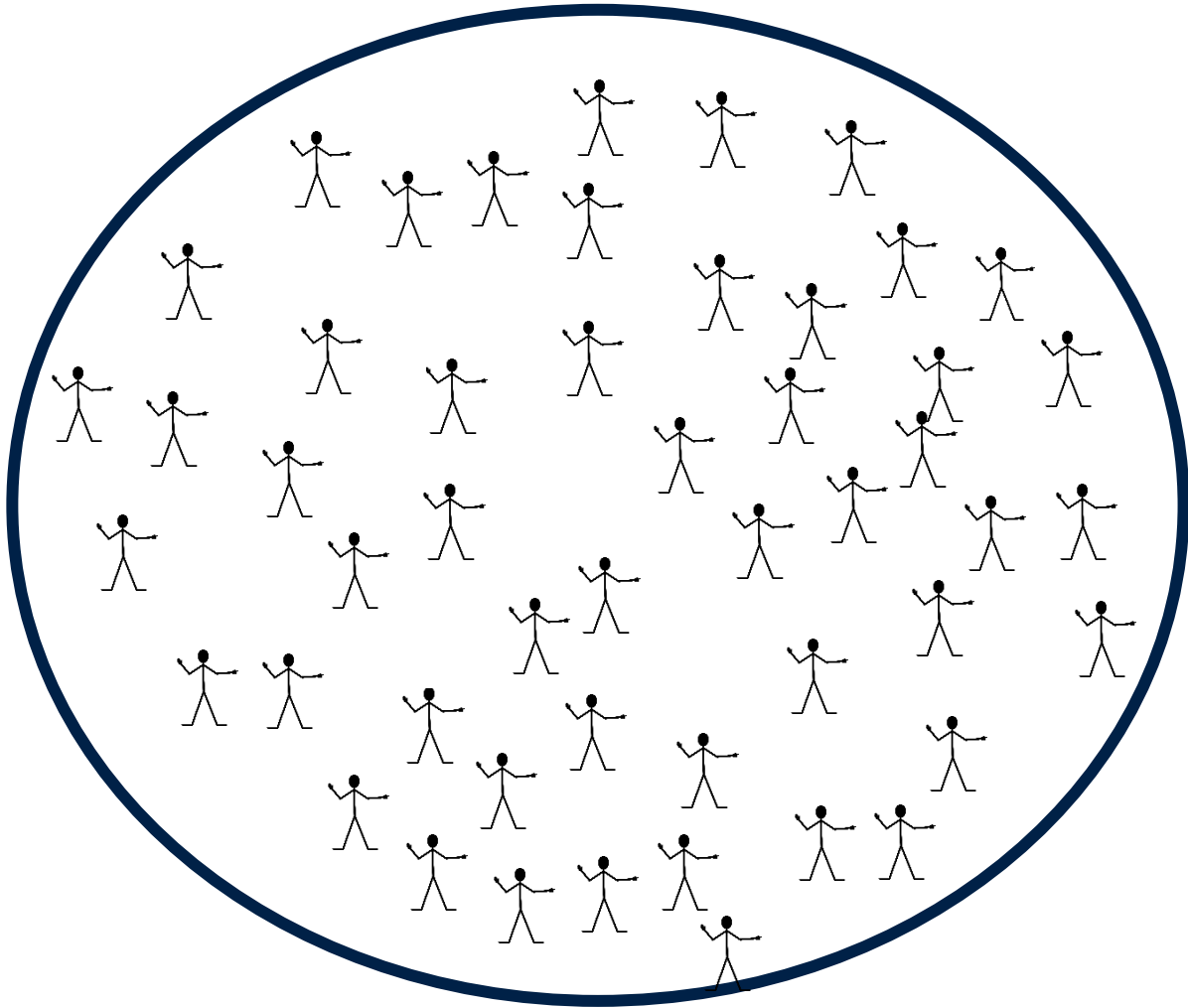
Separation	Number of people
1	50
2	2 500
3	125 000

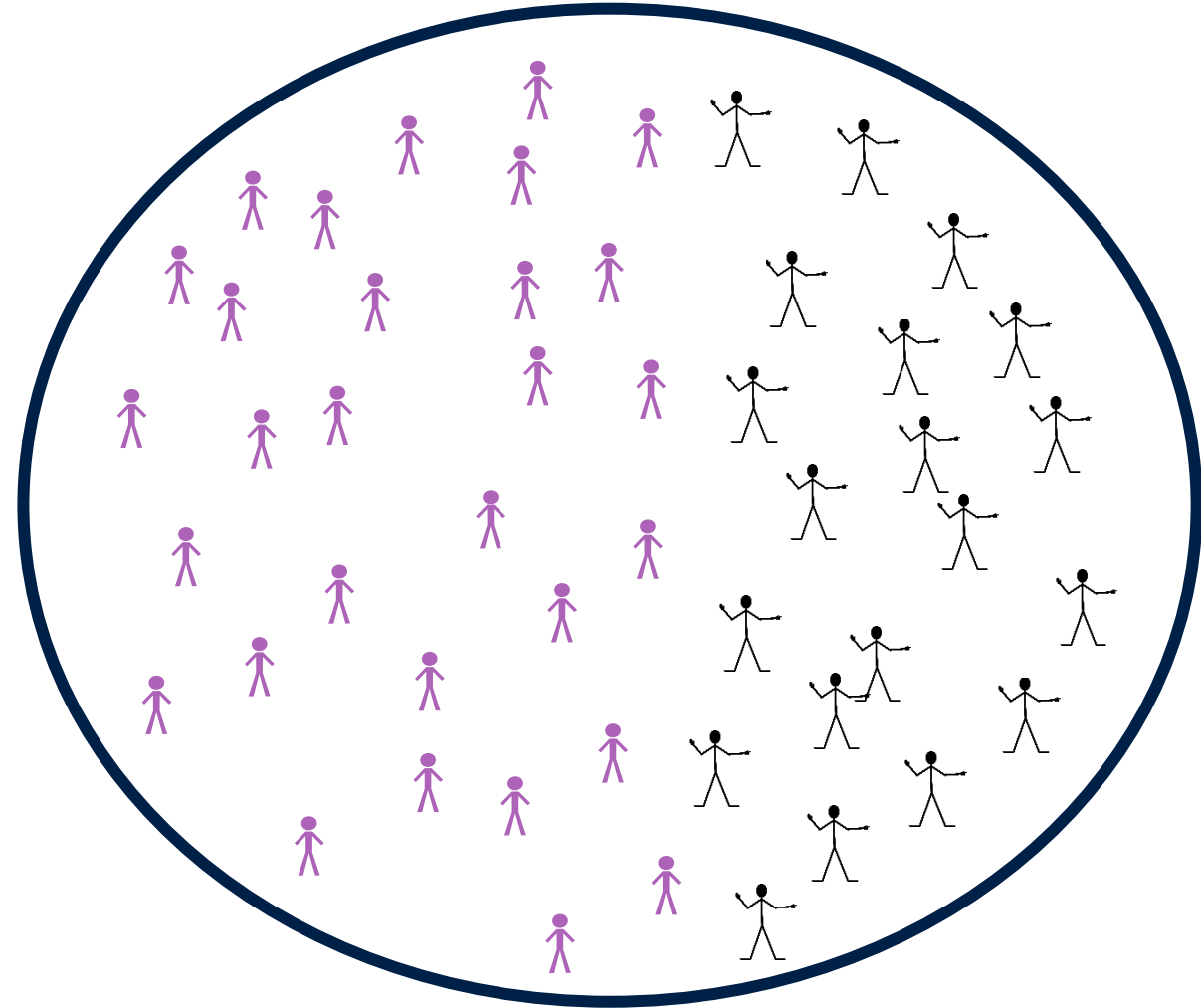
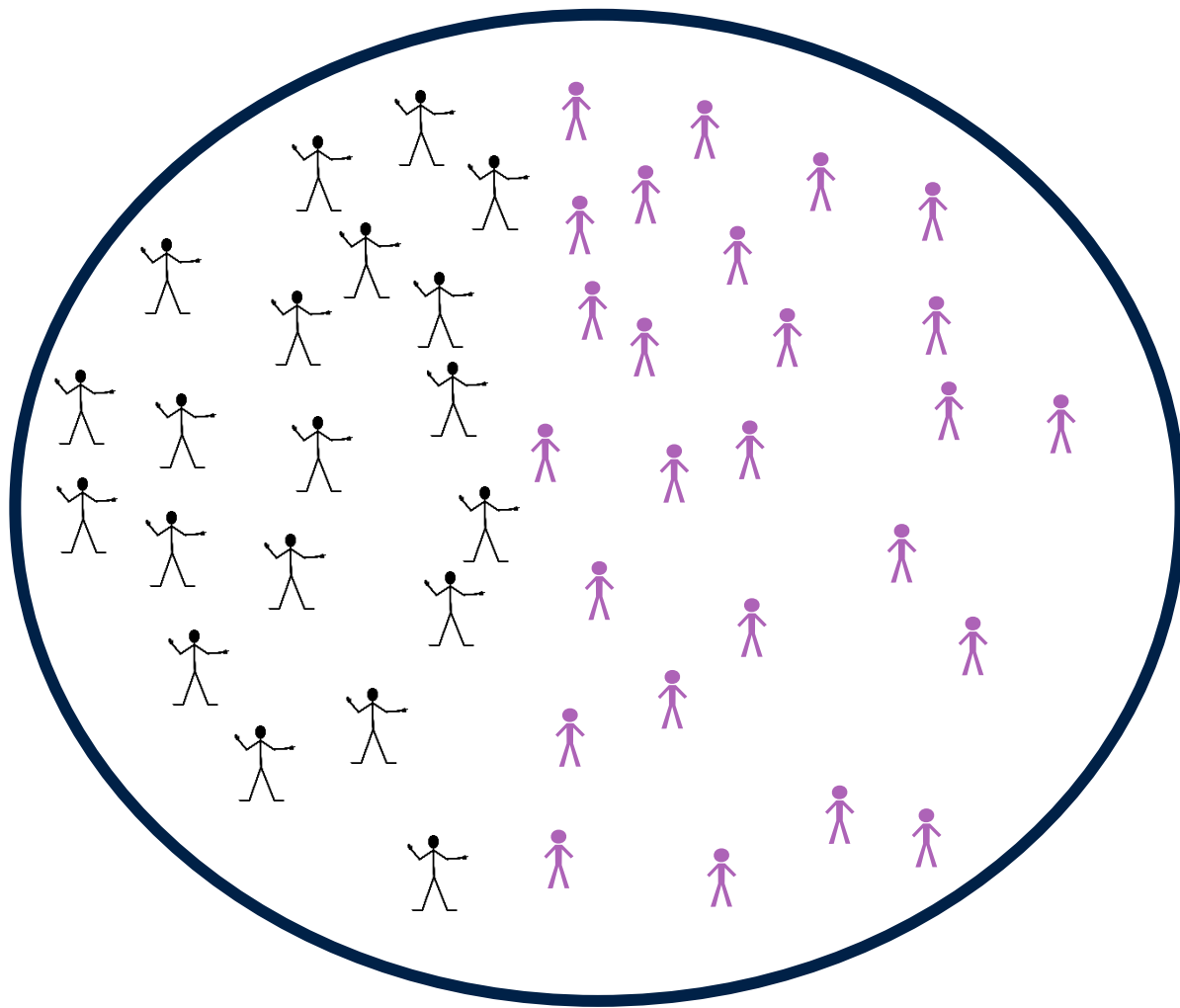
Separation	Number of people
1	50
2	2 500
3	125 000
4	6 250 000

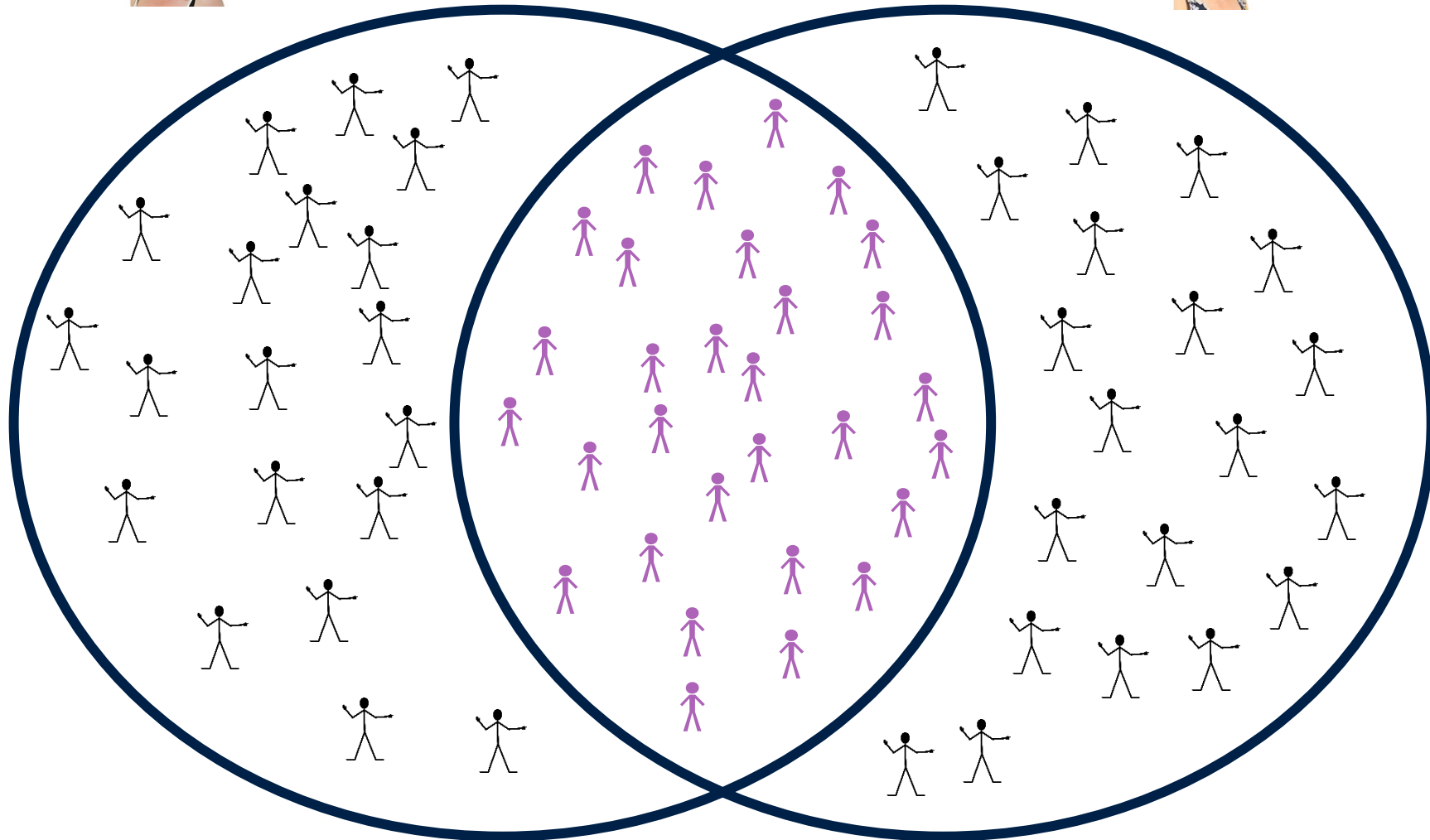
Separation	Number of people
1	50
2	2 500
3	125 000
4	6 250 000
5	312 500 000

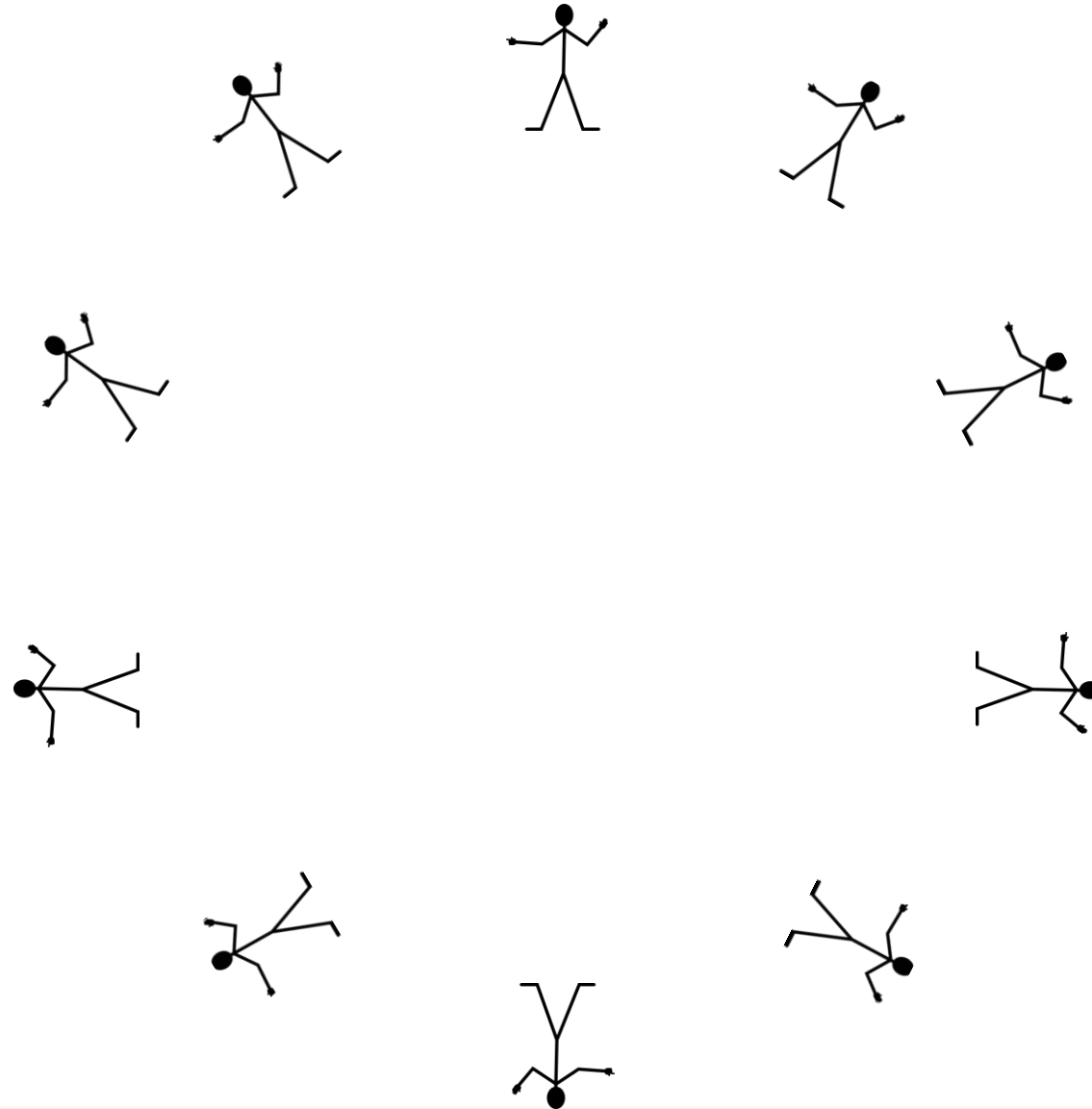
Separation	Number of people
1	50
2	2 500
3	125 000
4	6 250 000
5	312 500 000
6	15 625 000 000

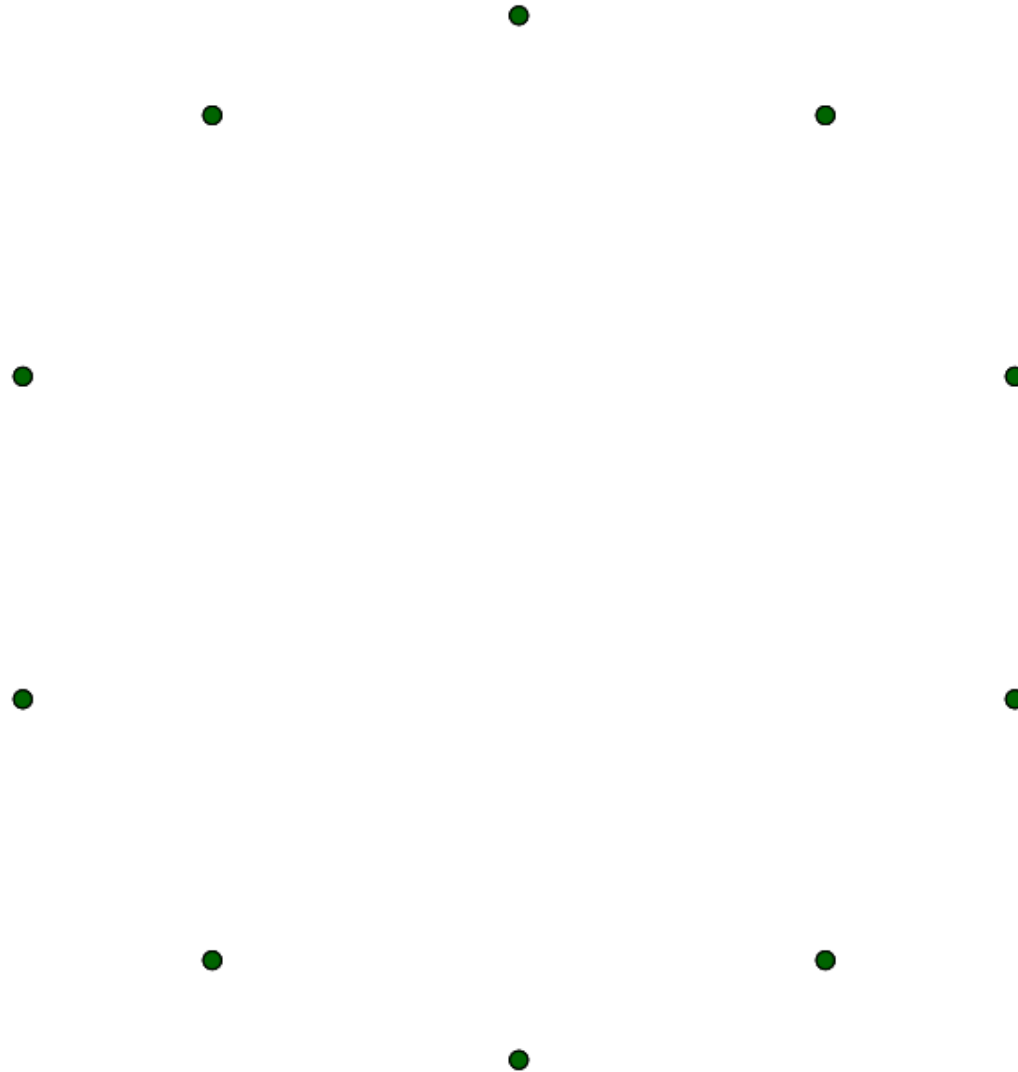


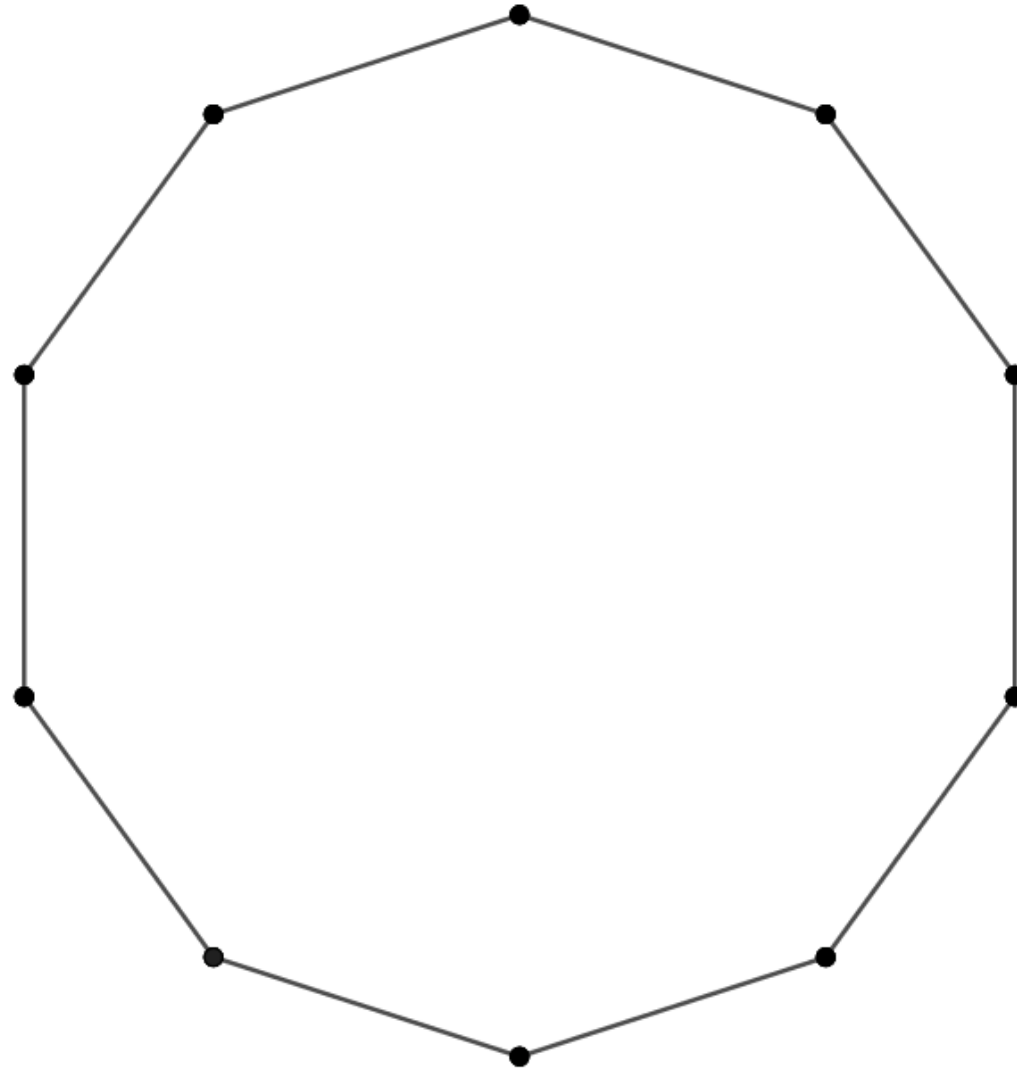


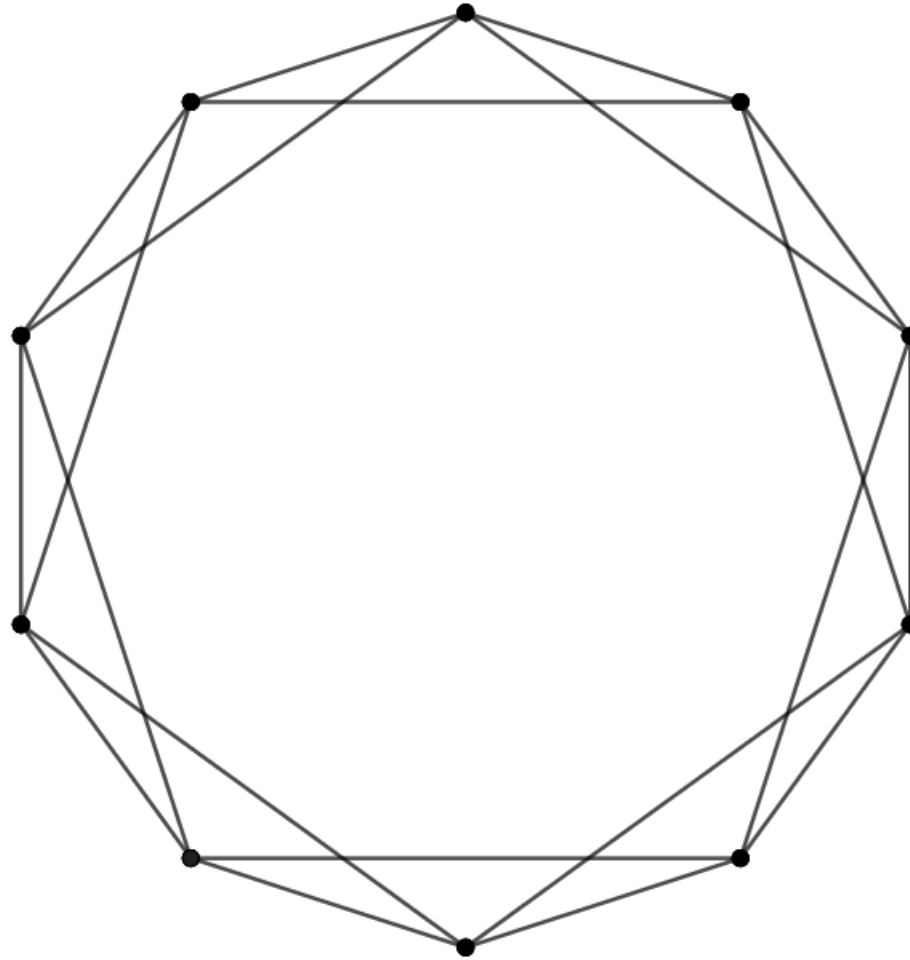


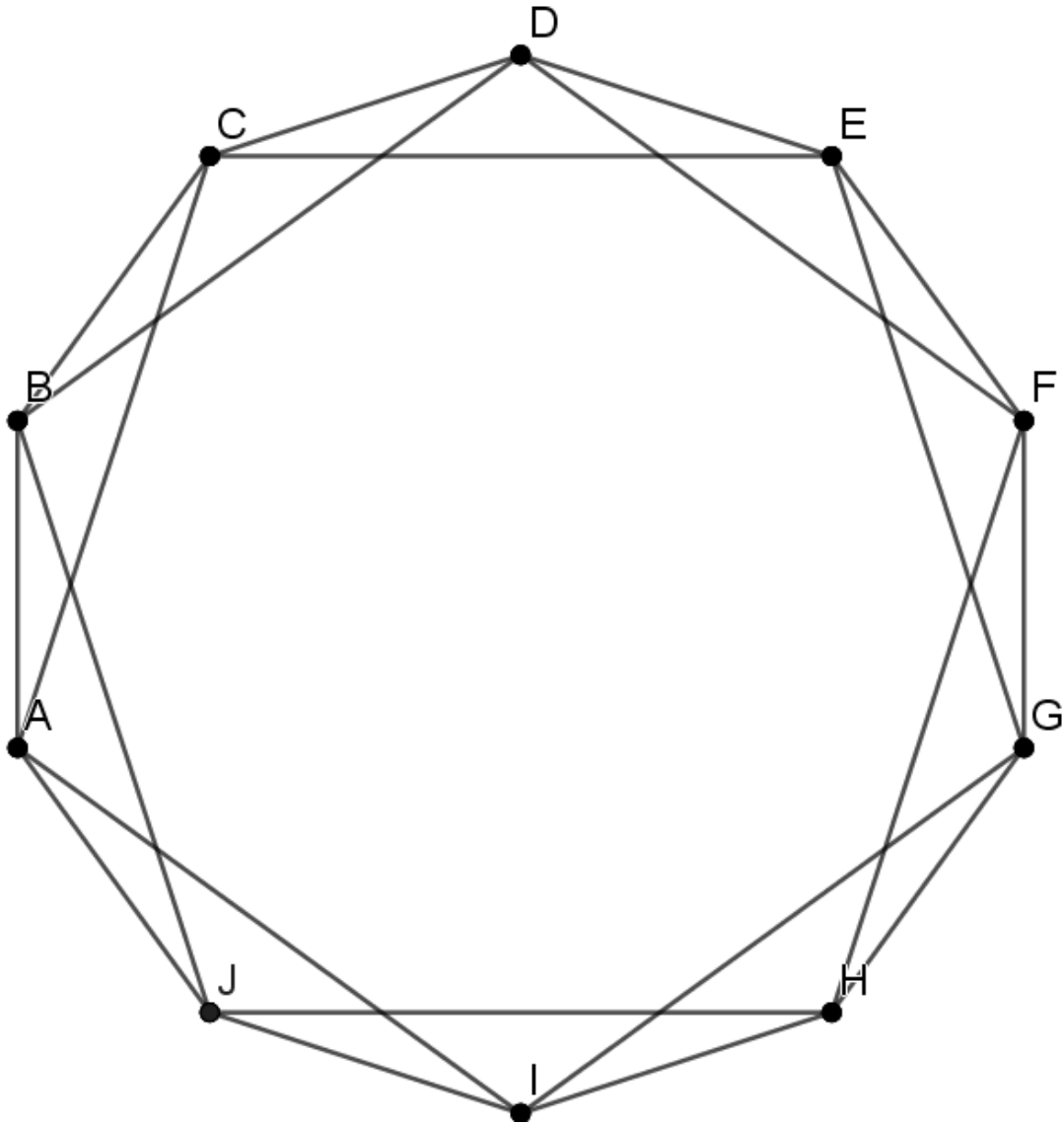








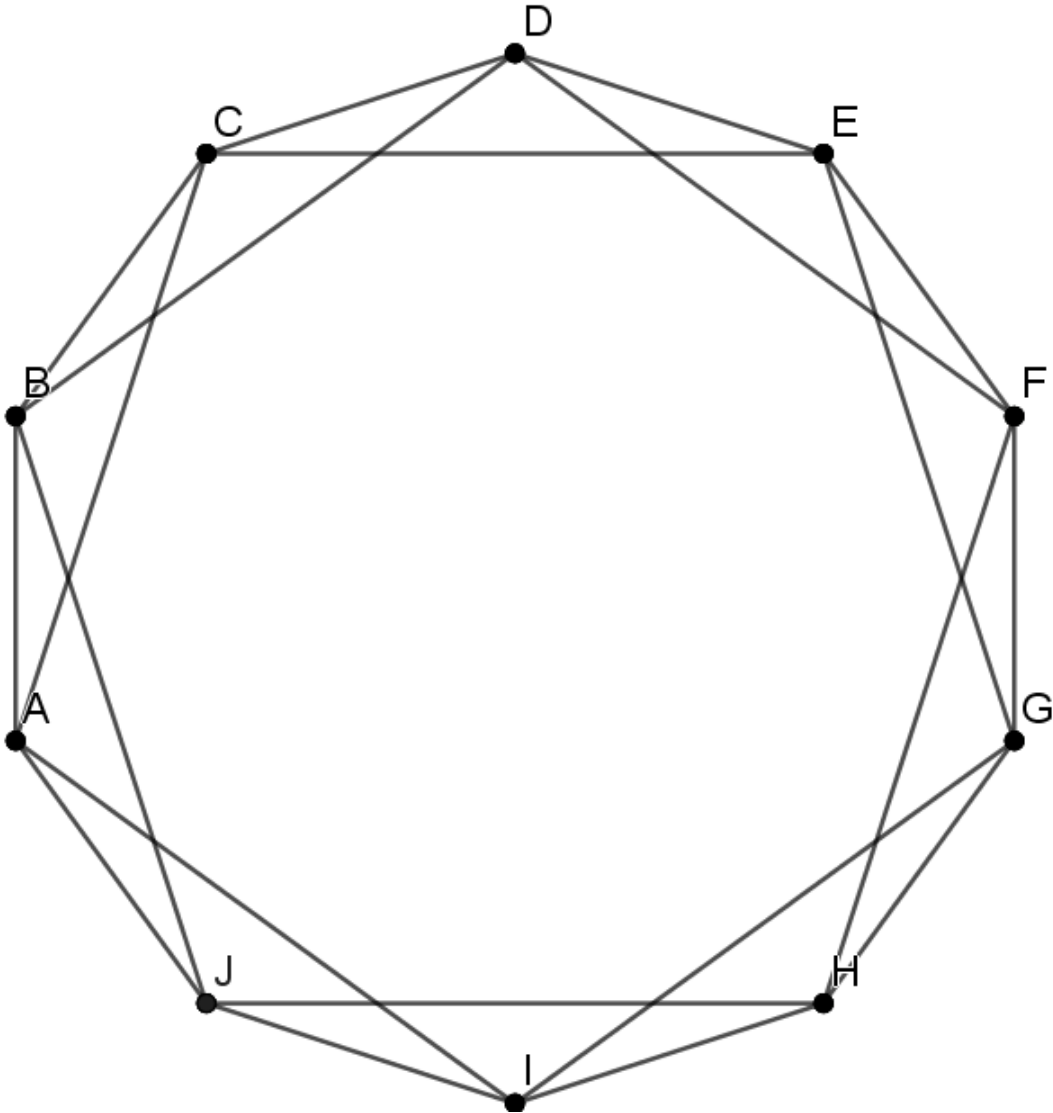




Separation from A to D =

Separation from A to F =

Maximum separation of network =



	A	B	C	D	E	F	G	H	I	J
A	-	1	1	2	2	3	2	2	1	1
B	1	-	1	1	2	2	3	2	2	1
C	1	1	-	1	1	2	2	3	2	2
D	2	1	1	-	1	1	2	2	3	2
E	2	2	1	1	-	1	1	2	2	3
F	3	2	2	1	1	-	1	1	2	2
G	2	3	2	2	1	1	-	1	1	2
H	2	2	3	2	2	1	1	-	1	1
I	1	2	2	3	2	2	1	1	-	1
J	1	1	2	2	3	2	2	1	1	-

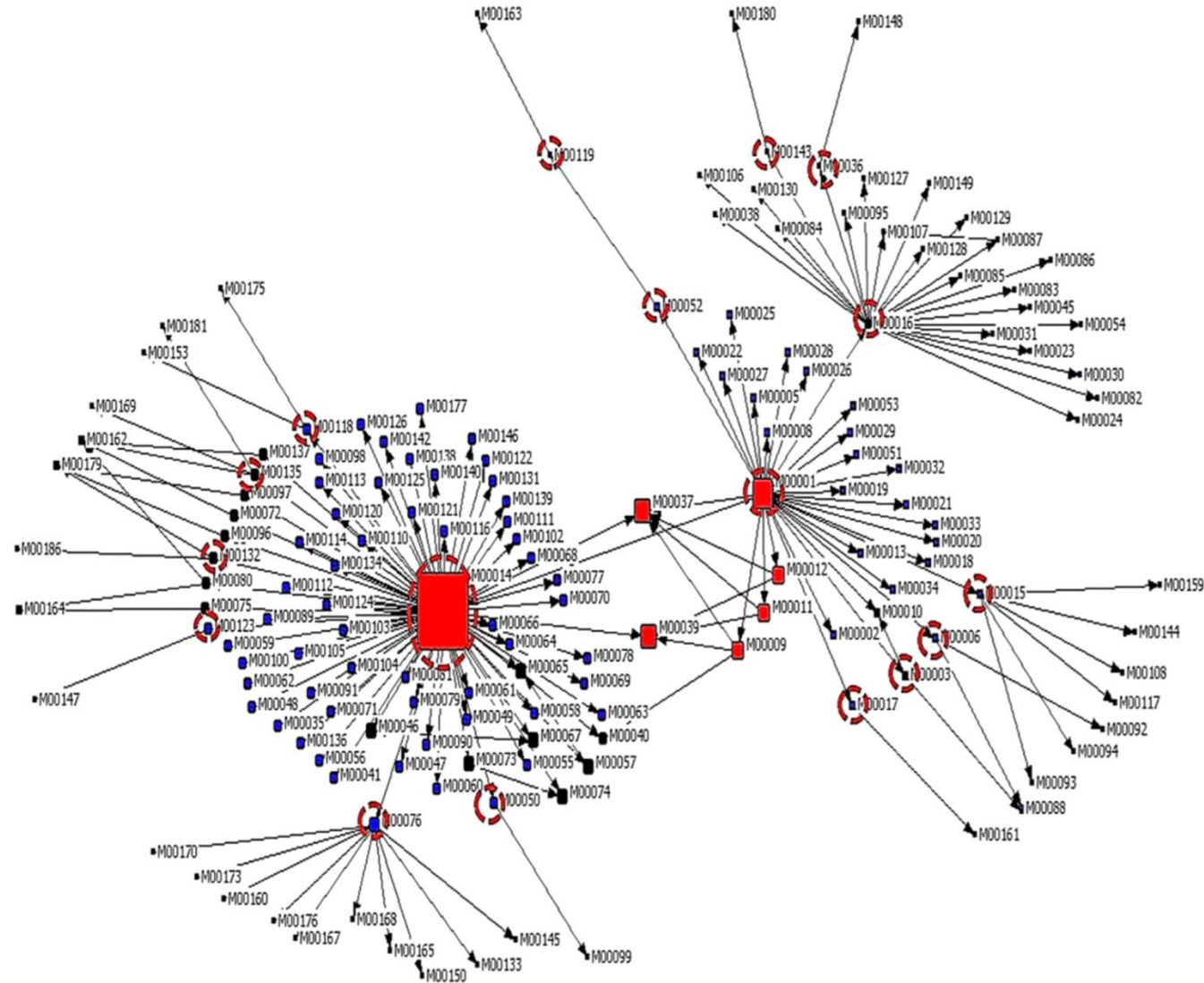
- Change the number of people (n) (you might want to start with 20)
 - Change number of friends (f)
 - What is the maximum separation?
(our graph of 10 people with 4 friends had a maximum separation of 3).
 - Can you generalise for n people with f friends?
-

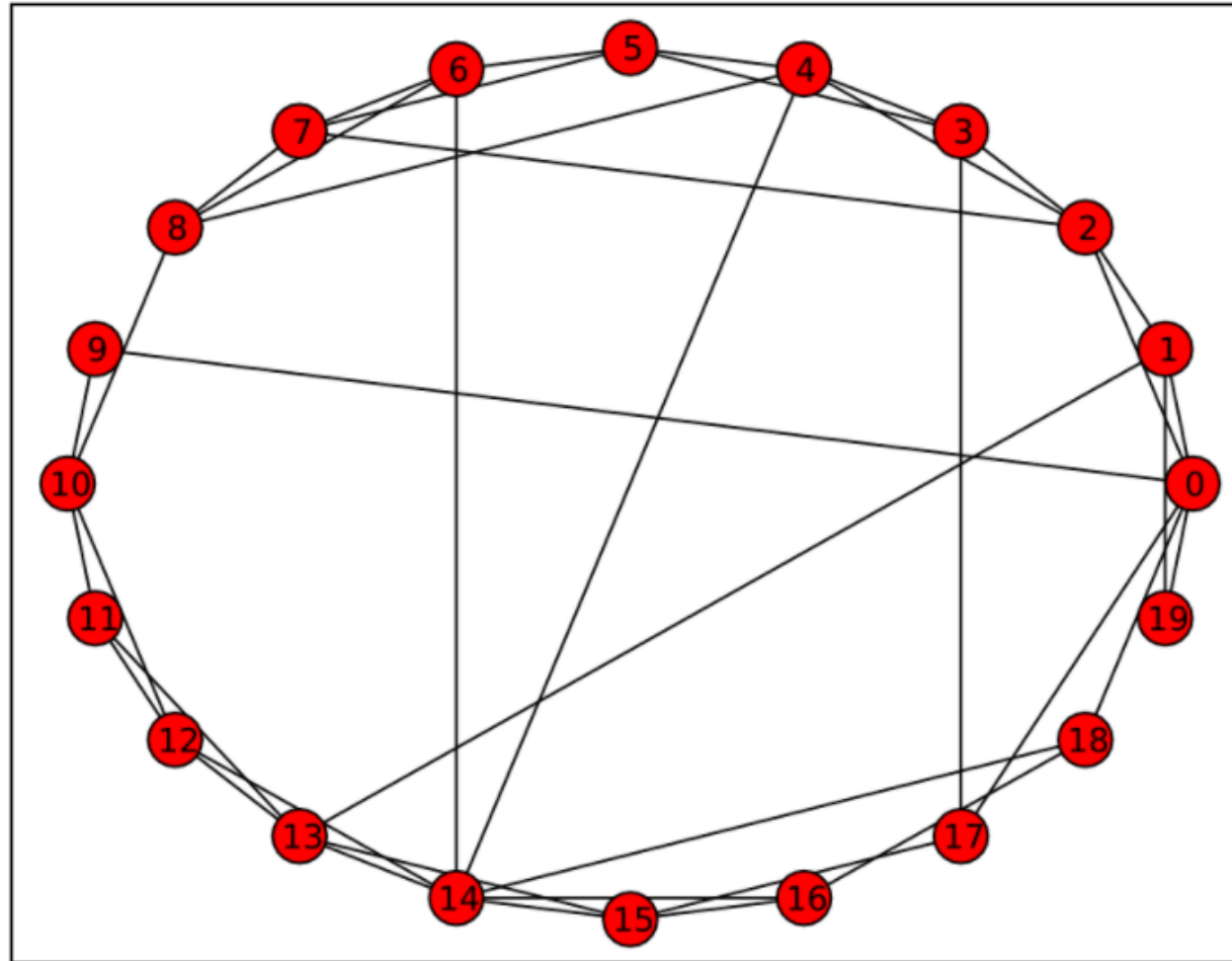
But WHY???



But WHY???







- Change the number of people (n) (you might want to start with 20)
 - Change number of friends (f)
 - What is the maximum separation?
(our graph of 10 people with 4 friends had a maximum separation of 3).
 - Can you generalise for n people with f friends?
-

- Design a poster that describes the problem and shows your solution.
 - This can be hand drawn or on computer.
 - You may wish to include some extension from the initial problem – your teacher will have some suggestions.
 - Ask your teacher to email your entry to us by Monday 21st March.
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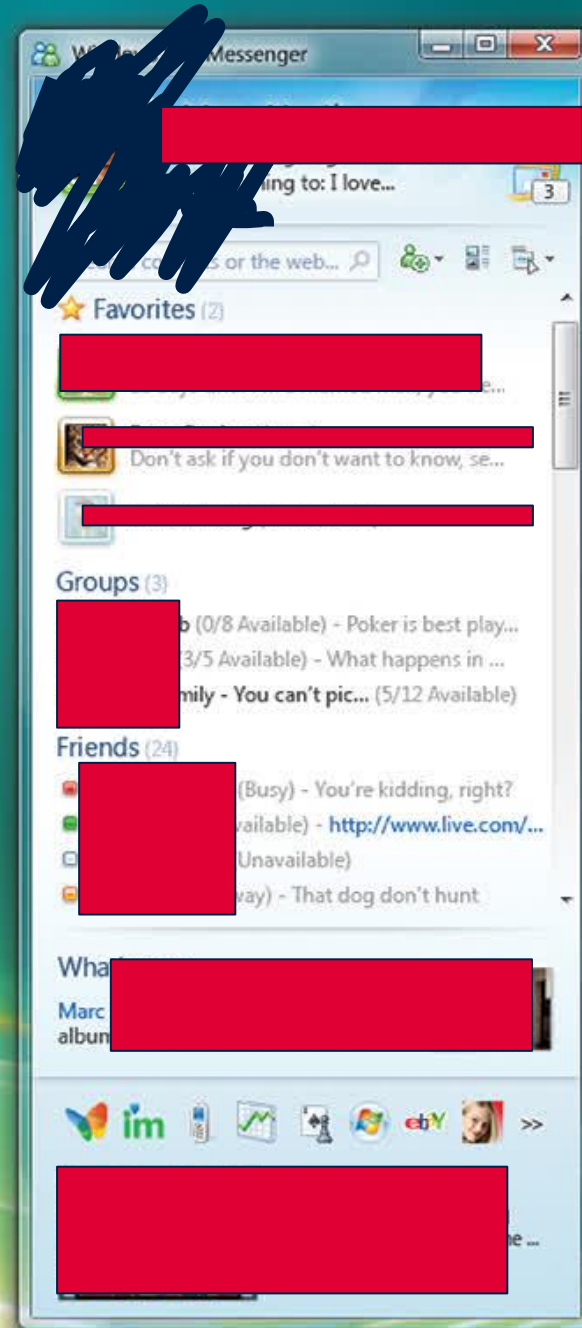
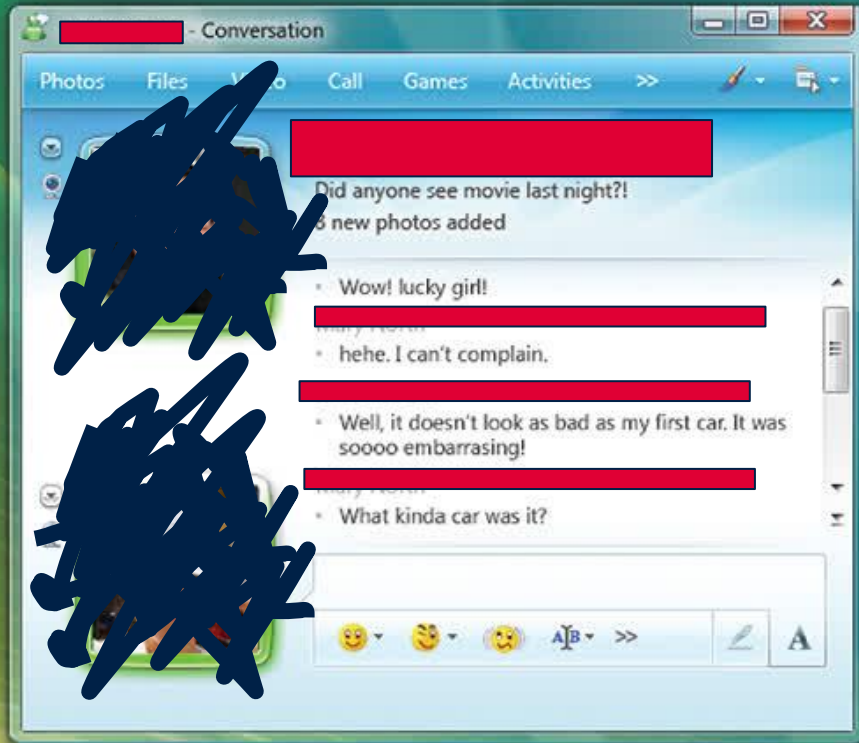
- The following slides won't be discussed on the video, but you may wish to share this information with interested students.
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Frigyes Karinthy







Windows Live Mess...