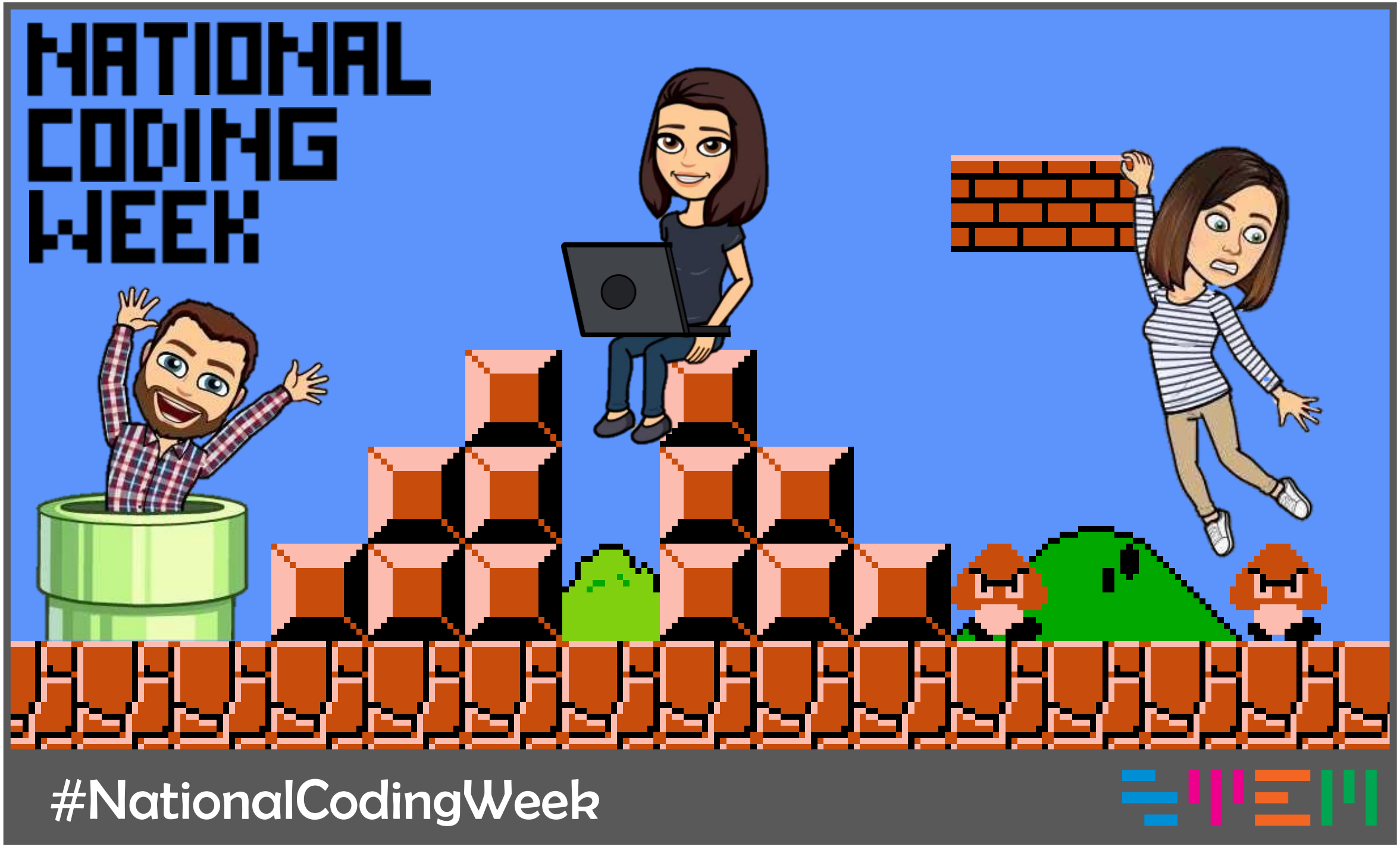

NATIONAL
CODING
WEEK
#NationalCodingWeek

What did the proud big computer call the little computer? Break the code and tweet your answer using #STEMGlasgow

100 0001

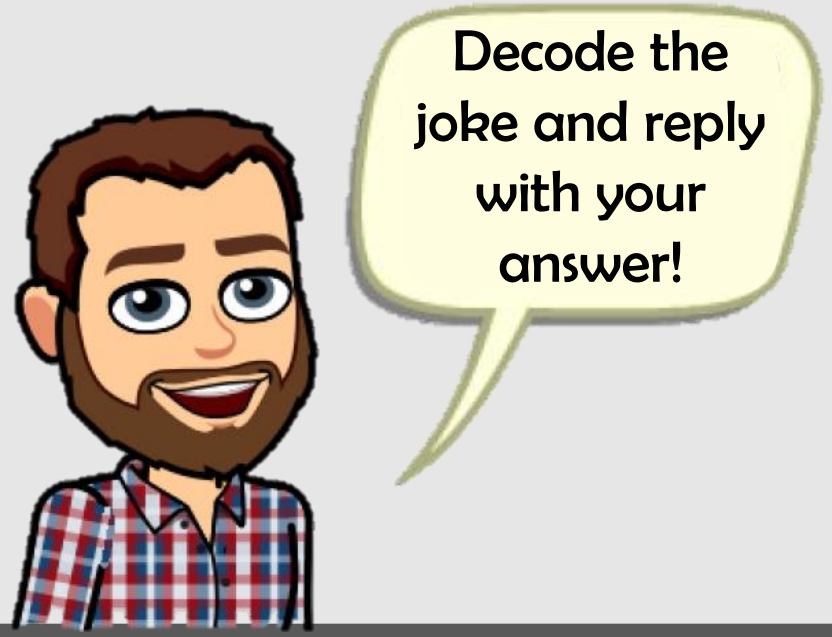
100 1101 – 100 1001 – 100 0011 – 101 1010 – 100 1111 - 1000 0011 – 100 1000 – 100 1001 – 101 0000

100 1111 – 100 0110 – 100 0110

101 0100 – 100 1000 – 100 0101

100 1111 – 100 1100 – 100 0100

100 0010 – 100 1100 – 100 1111 – 100 0011 – 100 1011



A	100 0001	H	100 1000	O	100 1111	V	101 0110
B	100 0010	I	100 1001	P	101 0000	W	101 0111
C	100 0011	J	100 1010	Q	101 0001	X	101 1000
D	100 0100	K	100 1011	R	101 1010	Y	101 1001
E	100 0101	L	100 1100	S	101 0011	Z	101 1010
F	100 0110	M	100 1101	T	101 0100	a	110 0001
G	100 0111	N	100 1110	U	101 0101	b	110 0010

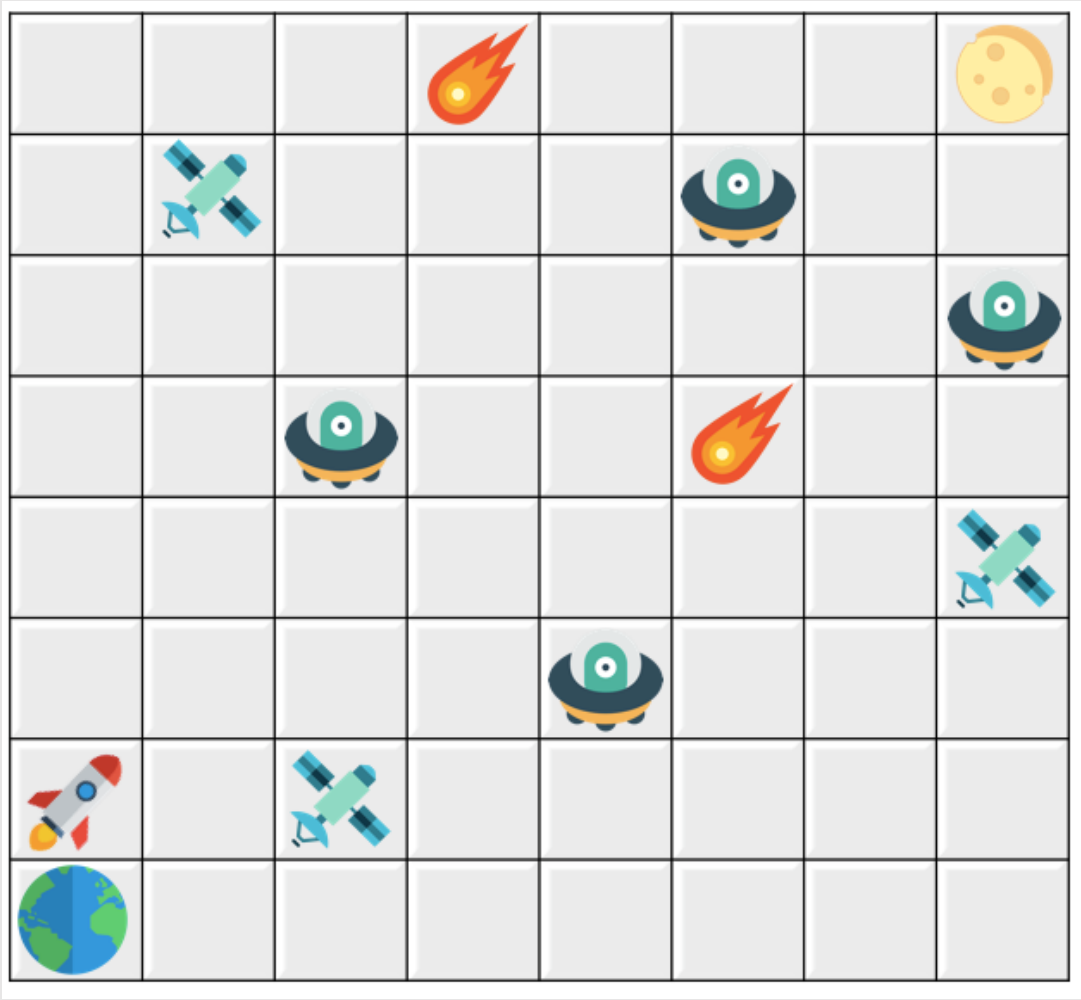
#NationalCodingWeek

Can you help Alex programme the rocket to make it from Earth to the Moon in as few moves as possible? Tweet your answer using #STEMGlasgow

We can use these moves:

- One box up
- One box down
- One box left
- One box right

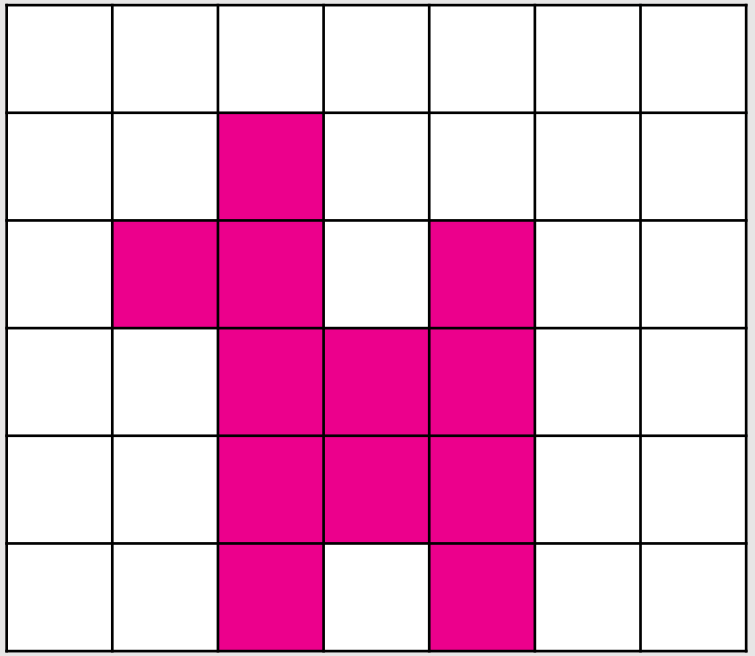
Watch out for the space traffic!

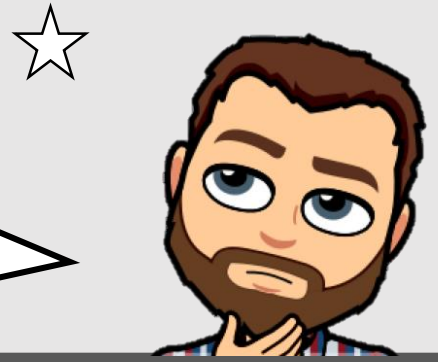


#NationalCodingWeek

Mark needs help finishing the the Algorithm below that would create the picture of the dog. He has completed the first two steps but the rest are up to you!

1	2	3	4	5
6	7	8	9	10
11	12	13	14	15
16	17	18	19	20
21	22	23	24	25
26				

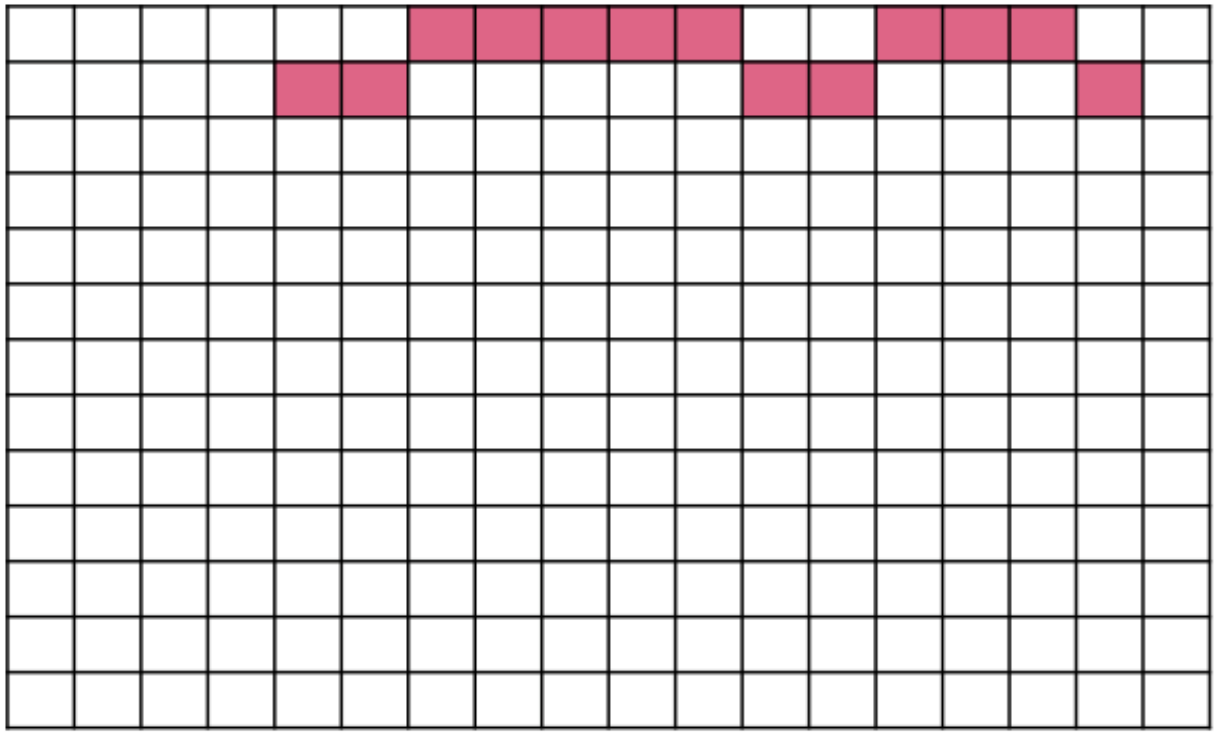




#NationalCodingWeek

Today Hannah needs a hand with some Image Representation. The first couple of lines have been done for you. Cam you complete the rest? Tweet your answer using #STEMGlasgow

Fill in the rows based on the numbers at the side and see what image it creates! The first number is how many blank squares you leave in the row, the next is how many you need to colour in.



6, 5, 2, 3
4, 2, 5, 2, 3, 1
3, 1, 9, 1, 2, 1
3, 1, 9, 1, 1, 1
2, 1, 11, 1
2, 1, 10, 2
2, 1, 9, 1, 1, 1
2, 1, 8, 1, 2, 1
2, 1, 7, 1, 3, 1
1, 1, 1, 1, 4, 2, 3, 1
0, 1, 2, 1, 2, 2, 5, 1
0, 1, 3, 2, 5, 2
1, 3, 2, 5

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Answers

Challenge 1

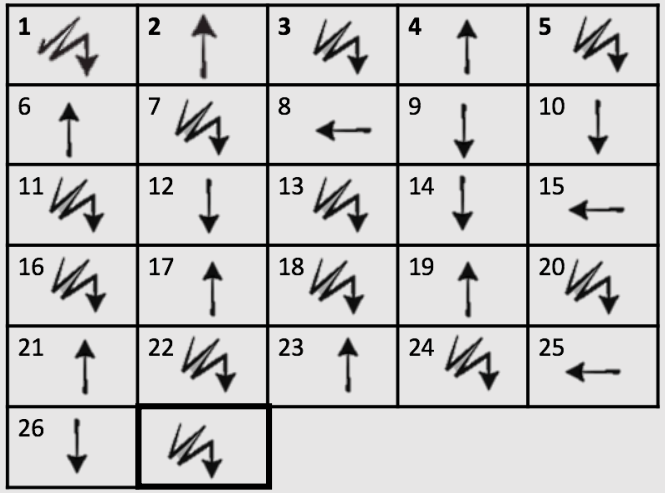
A. A microchip off the old block

Challenge 2

A. 13 moves

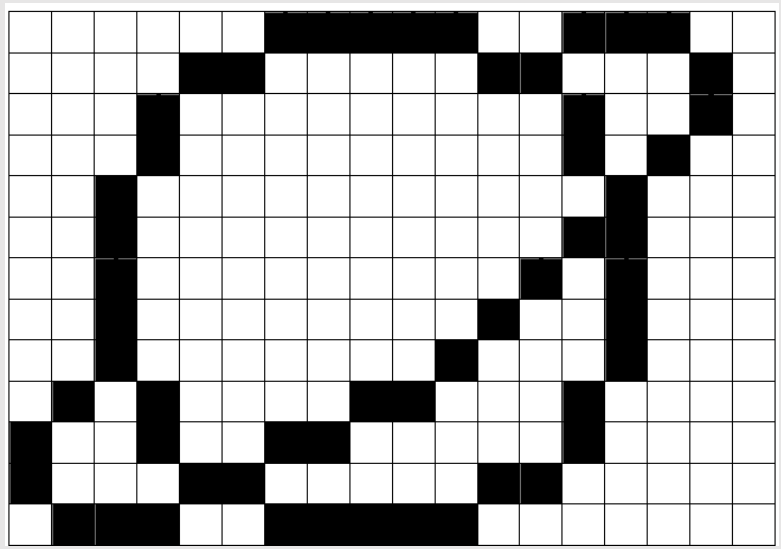
Challenge 3

A.



Challenge 4

A.



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