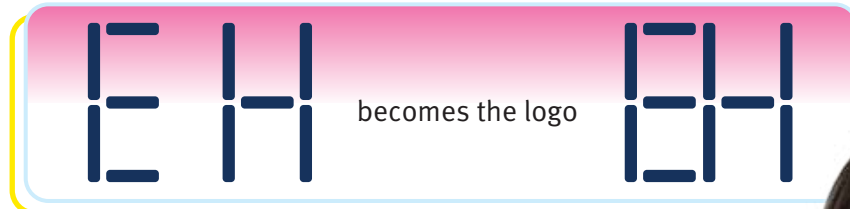


Initials Logo

You need: a classmate, sticks (optional)

ACTIVITY

1. Evaluesi Henry makes her initials into a stick logo like this:

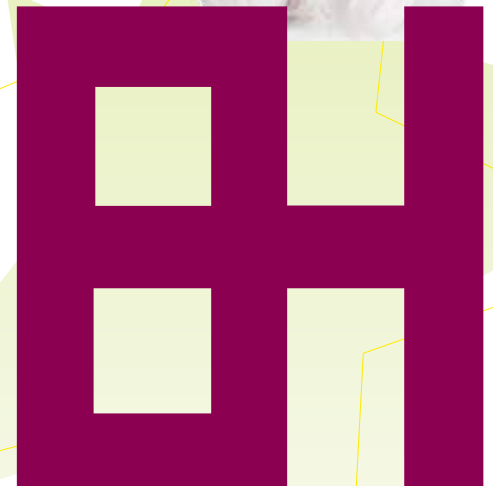


She also makes a design by repeating her logo like this:



- a. Evaluesi predicts that $5 \times 8 + 2 = 42$ sticks will make a design with 5 joined logos. Make the design and check whether she is correct.
- b. Explain how Evaluesi's short cut, $5 \times 8 + 2$, works.
- c. Predict the number of sticks used in a design that has 100 joined EH logos.
- d. Complete the table below.

Number of joined logos	Number of sticks
5	$5 \times 8 + 2 = 42$
6	
20	
94	
256	



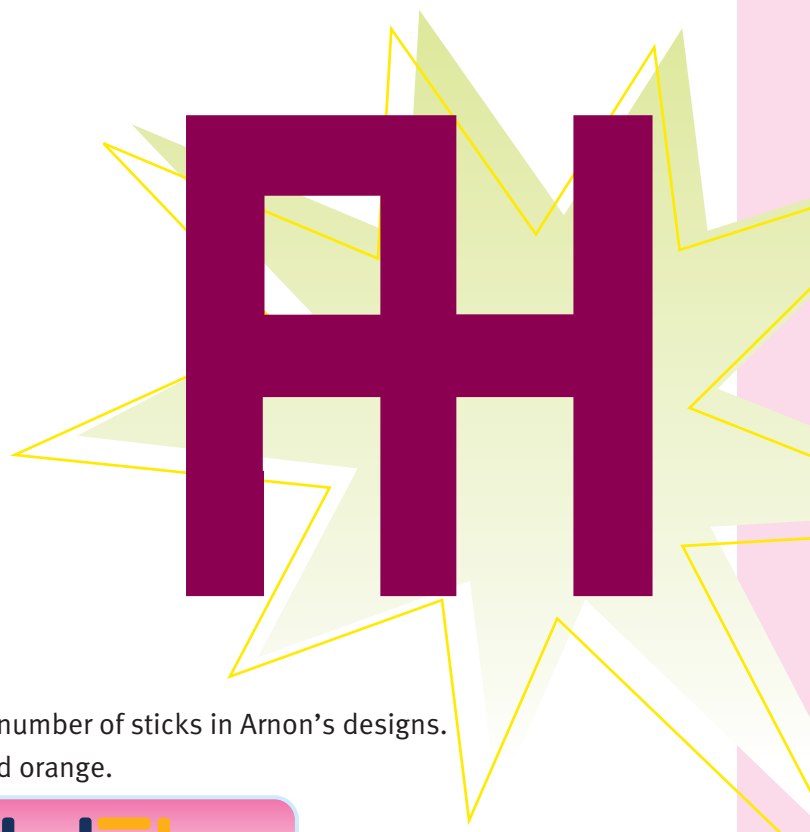
2. Arnon Hosiri also makes a design by repeating the logo from his initials.



- a. Arnon predicts that $5 \times 7 + 2 = 37$ sticks will make a design with 5 joined logos. Make the design and check whether he is correct.
- b. Explain how Arnon's short cut, $5 \times 7 + 2$, works.
- c. Predict the number of sticks used in a design that has 100 joined AH logos.

d. Complete the table below.

Number of joined logos	Number of sticks
5	$5 \times 7 + 2 = 37$
7	
36	
87	
109	



3. Evalesi uses another short cut to predict the number of sticks in Arnon's designs. She uses 5 additional sticks that are coloured orange.



Evalesi then says that a design with 3 of Arnon's logos has $4 \times 7 - 5$ sticks.

- Explain how Evalesi's new short cut, $4 \times 7 - 5$, works.
- Use this short cut to predict the number of sticks in a design with 5 of Arnon's logos.
- Complete the table below.

Number of joined logos	Number of sticks
3	$4 \times 7 - 5 = 23$
9	
15	
47	
183	

d. Complete the table below using Evalesi's new short cut.

Number of joined logos	Number of sticks
6	
	16
	30
	72
	632

