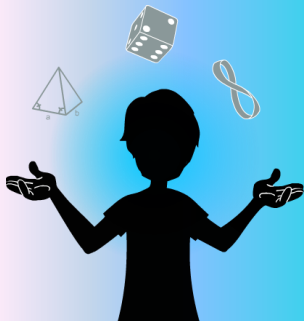


# PUZZLING CARTOON

## - HELEN'S POTS -



AMAZINGMATHS

### Materials:

- Video of the puzzle
- Sheets of paper
- Pencils

## The puzzle

Helen is camping and she wants to cook some pasta. She has a 3L pot and a 5L pot. She needs exactly four litres of water. Of course, her pots are not graduated.



How can Helen measure exactly 4L using only her two pots?

Source : MAZZA, Fabrice, *Le grand livre des énigmes*, « Philtre d'amour », Marabout, Paris, 2006, p.6.



# PUZZLE SOLUTION



## The answer:

### Solution 1 :

1. Helen starts by filling her 3L pot.
2. She empties **it** out in the 5L pot.
3. She fills her 3L pot again.
4. She empties out all she can in the 5L pot. There is 1L left in the 3L pot.
5. Helen empties out the 5L pot on the ground (or somewhere else).
6. She empties out the water left in the 3L pot (1L) into the 5L pot.
7. She fills one last time the 3L pot.
8. She empties **it** out in the 5L pot that now contains 4L!

Here is a table that sums up the content of the pots after each step.

Step	3L pot	5L pot
0.	0L	0L
1.	3L	0L
2.	0L	3L
3.	3L	3L
4.	1L	5L
5.	1L	0L
6.	0L	1L
7.	3L	1L
8.	0L	<b>4L</b>

### Solution 2 :

1. Helen fills the 5L pot.
2. She pours the content in the 3L pot. There are 2L left in the 5L pot.
3. She empties out the 3L pot on the ground (or somewhere else).
4. She pours the 2L that are in the 5L pot into the 3L pot.
5. She fills the 5L pot.
6. She pours the content of the 5L pot into the 3L pot, until it is full. There are now 4L left in the 5L pot.

Here is a table that sums up the content of the pots after each step.

Step	3L pot	5L pot
0.	0L	0L
1.	0L	5L
2.	3L	2L
3.	0L	2L
4.	2L	0L
5.	2L	5L
6.	3L	<b>4L</b>