



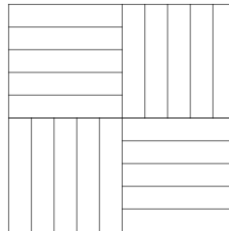
## Task 1

# Color Puzzle

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### Equipment:

- Five colored pencils
- Two work sheets



Color the figure.

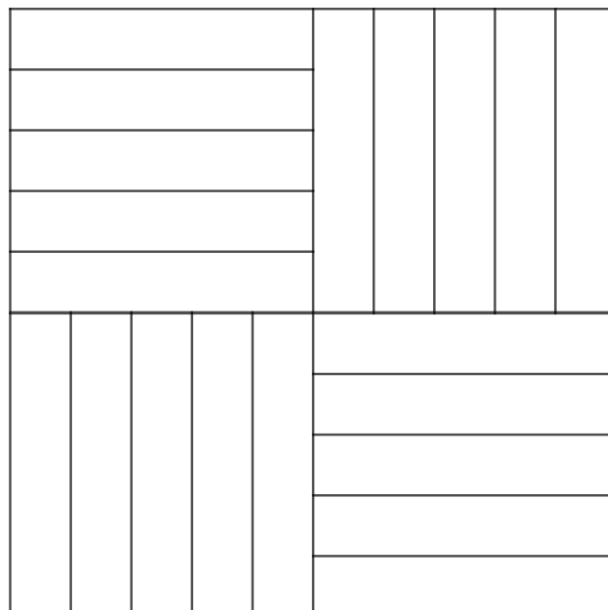
The challenge is to

- do it in such a way that regions sharing a common boundary (other than a single point) do not share the same color
- use as few colors as possible

## Answer

## Country:

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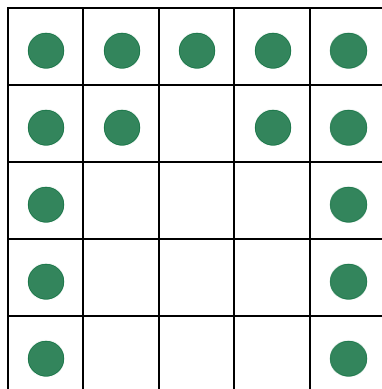
## Task 2

# Move the Pieces

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### Equipment:

- A 5 x 5 grid
- 15 pieces
- Answer sheet
- Work sheets



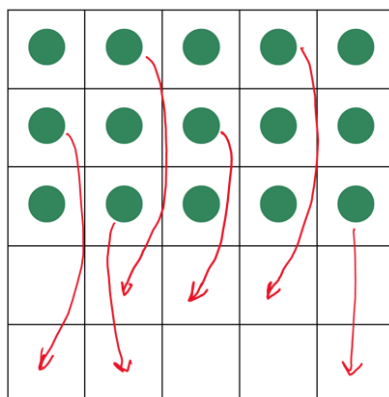
In the diagram, any ● may be moved to any unoccupied space.

What is the smallest number of ●'s that must be moved so that each row and each column contain three ●'s?

Use arrows to show the moves at the answer sheet.

### Example

If we start with five ●'s in in tree lines, the solution can be like this:





Task 2

Answer

Country:

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|   |   |   |   |   |
|---|---|---|---|---|
| ● | ● | ● | ● | ● |
| ● | ● |   | ● | ● |
| ● |   |   |   | ● |
| ● |   |   |   | ● |
| ● |   |   |   | ● |

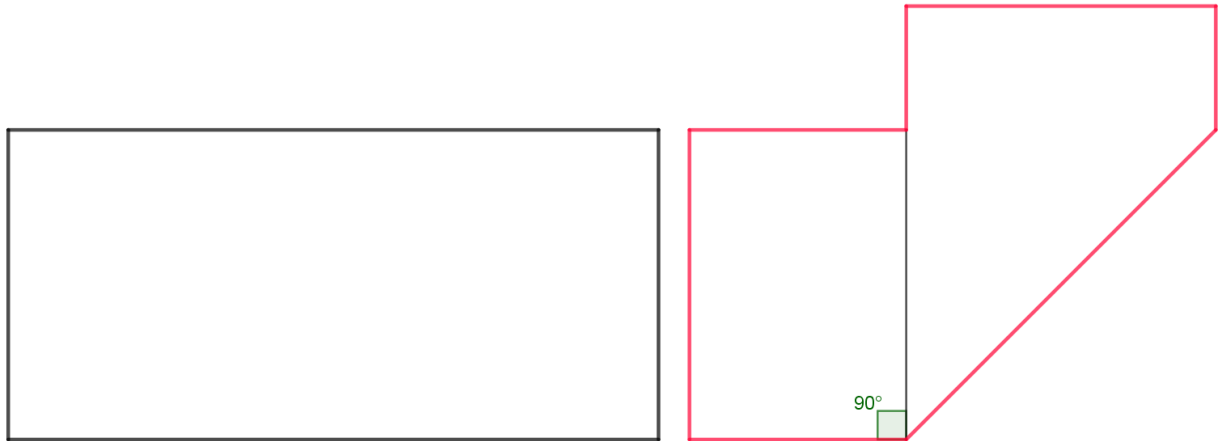


### Task 3

# Area

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**Equipment:** A4 paper to fold



A rectangular piece of paper measures 42 cm by 20 cm.

It is folded so that a right angle is formed between the two segments of the original bottom edge, as shown.

What is the area of the new figure, inside the red lines?

### Task 3

Answer

Country:

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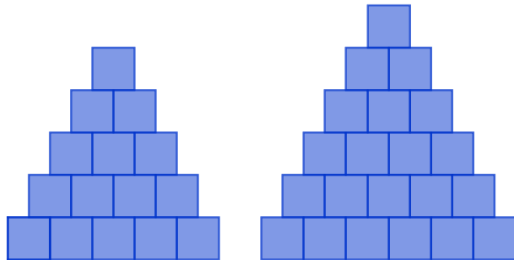


## Task 4

# Stacs of blocks

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**Equipment:** Square Counters



Clara knocks over the two stacks of blocks shown in the diagram. She then uses the blocks to build a similar stack whose top layer has one block, and each layer below has one more block than the layer above it.

- a) If she builds the largest possible stack, how many blocks will be left over?

The diagram shows stacks number 5 and 6.

- b) How can we easily find the number of blocks in two random consecutive stacks?

**Answer**

**Country:**

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## Task 5

# Pair Sums

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Five numbers are added together in pairs to produce the following answers:

0    2    4    6    8    9    11    13    15

What are the five numbers? Explain your reasoning.

**Answer**

**Country:**

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