

## EYFS (Nursery and Reception)

Charlie is sorting through his favourite toys. He has: a bear, three cars, four pencils, one book and a pot of play dough. How many objects does he have altogether?

Extension: His sister borrows three of his cars to play with. How many objects does Charlie have left to play with now?

## KS1 (Year 1 & 2) – Two Dice



Here are two dice.

If you add up the dots on the top you'll get 7.

Find two dice to roll yourself. Add the numbers that are on the top. What other totals could you get if you roll the dice again?

## LKS2 (Year 3 and 4) – 3 Blocks Tower



Take three different colour blocks, maybe red, yellow and blue.

Make a tower using one of each colour.

Here's one with red on top, blue in the middle and yellow on the bottom.

Now make another tower with a different colour on top.

How many different towers can you make?

When you are sure you have found them all, try it with four colours.

## UKS2 (Year 5 and 6) – National Flags



Pick any flag and investigate some of the following:-

What shapes can you see in it? Can you describe them and their angles?

Does the flag have any lines of reflective symmetry, if so how many lines?

Can you find any pairs of parallel lines? If so mark them on your flag.

Are there any lines perpendicular to one another?

Can you find a way to classify the shapes in your flag?

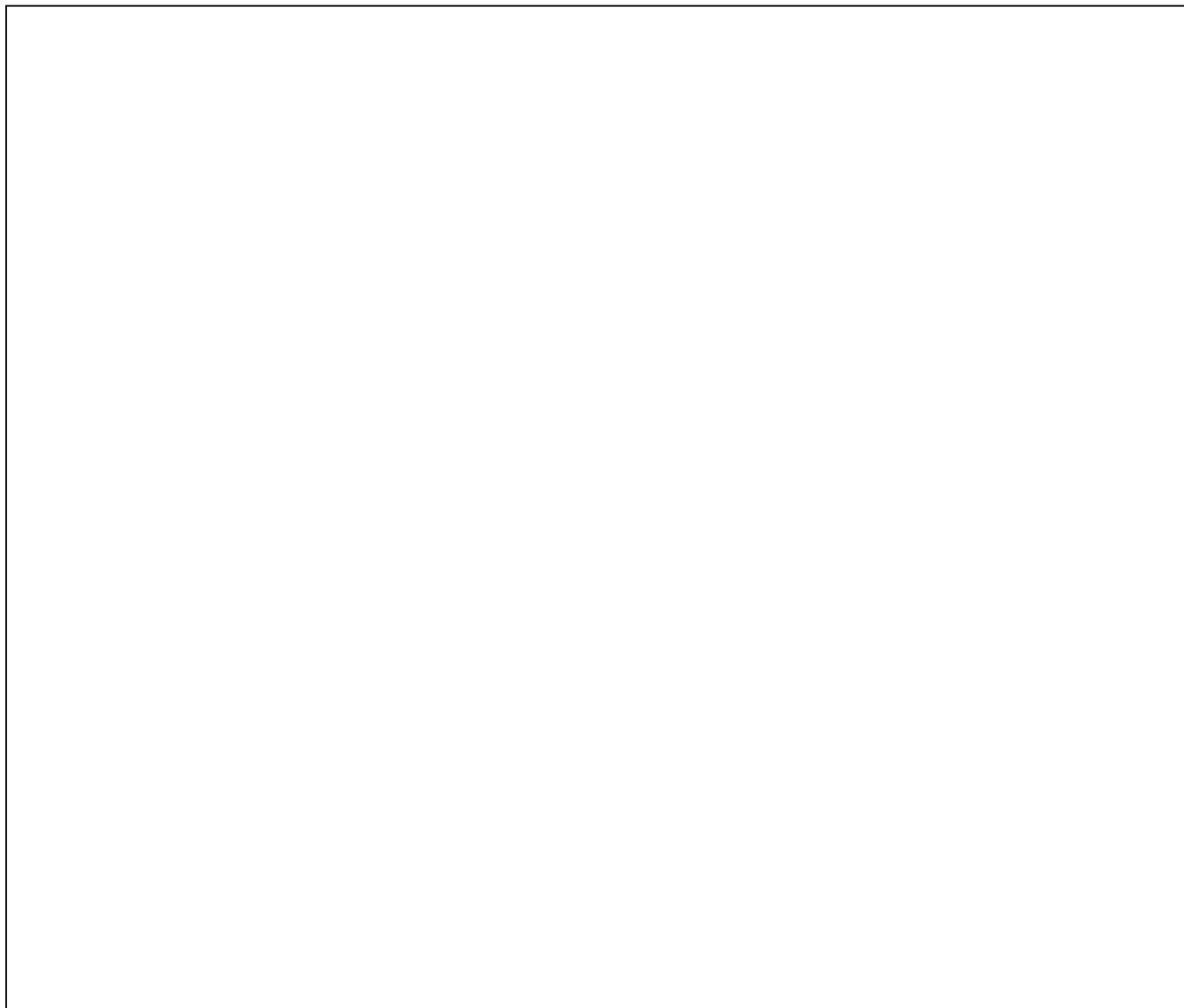
Now try with another flag.

Remember you can work the challenge out any way you would like to: draw pictures, use materials like buttons as counters, count in your head... Just make sure you show this on your solution paper!

Name: \_\_\_\_\_

Year: \_\_\_\_\_

Working out space:



Now explain how you solved the problem!

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