

# Discussion Problems

## Step 1: Add by Counting On

### National Curriculum Objectives:

Mathematics Year 1: (1C2a) [Add and subtract one-digit and two-digit numbers to 20, including zero](#)

Mathematics Year 1: (1C4) [Solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as  \$7 = - 9\$](#)

### About this resource:

This resource has been designed for pupils who understand the concepts within [this step](#). It provides pupils with more opportunities to enhance their reasoning and problem solving skills through more challenging problems. Pupils can work in pairs or small groups to discuss with each other about how best to tackle the problem, as there is often more than one answer or more than one way to work through the problem.

There may be various answers for each problem. Where this is the case, we have provided one example answer to guide discussion.

We recommend self or peer marking using the answer page provided to promote discussion and self-correction.

More [Year 1 Addition and Subtraction](#) resources.

Did you like this resource? Don't forget to [review](#) it on our website.

# Add by Counting On

1. Ruby has been adding by counting on using a number line.



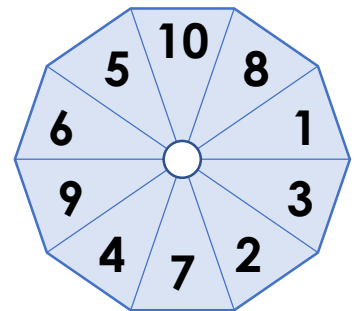
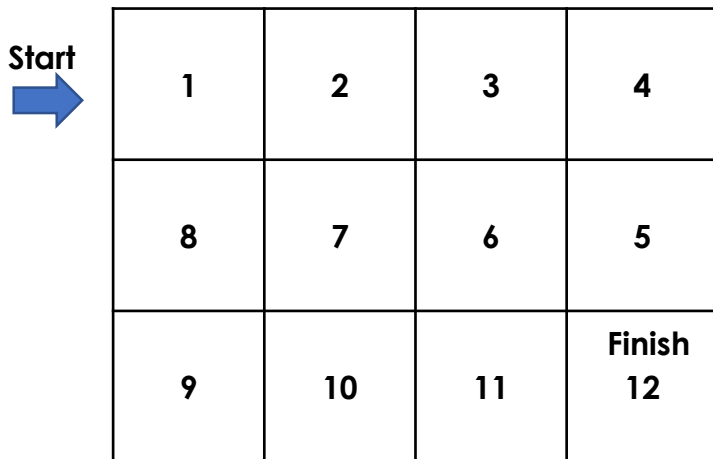
The numbers have been rubbed off my number line and I've forgotten the calculation I was doing!



What calculation could Ruby have been doing? Explore the possibilities.

DP

2. Danny is playing the game below. He spins the spinner and then moves the number of squares the spinner shows.



He finishes the game with two spins of the spinner.

Investigate the numbers he could have spun.

DP

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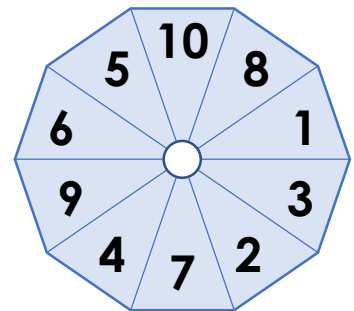
$4 + 9 = 13$ ,  $4 + 10 = 14$ ,  $5 + 8 = 13$ ,  $5 + 9 = 14$

DP

2. Danny is playing the game below. He spins the spinner and then moves the number of squares the spinner shows.

Start →

1	2	3	4
8	7	6	5
9	10	11	Finish 12



He finishes the game with two spins of the spinner.

Investigate the numbers he could have spun.

$2$  and  $10$ ,  $3$  and  $9$ ,  $4$  and  $8$ ,  $5$  and  $7$ ,  $6$  and  $6$

DP