## Reasoning and Problem Solving Step 1: Numbers to 50

## National Curriculum Objectives:

Mathematics Year 1: (1N1a) Count to and across 100, forwards and backwards, beginning with 0 or 1 , or from any given number
Mathematics Year 1: (1N2a) Count, read and write numbers to 100 in numerals

## Differentiation:

Questions 1, 4 and 7 (Reasoning)
Developing Identity whether the pictorial representation corresponds with the given number. Includes numbers up to 50 and with ten frames and counters to show grouping. Expected Identity whether the pictorial representation corresponds with the given number. Includes numbers up to 50 and images with $1: 1$ correspondence to show grouping. Greater Depth Identity whether the pictorial representation corresponds with the given number. Includes numbers up to 50 and images to show grouping.

Questions 2, 5 and 8 (Reasoning)
Developing Explain if a statement is correct. Includes numbers up to 50 and use of completed number tracks which do not cross 10.
Expected Explain if a statement is correct. Includes numbers up to 50 and use of completed number tracks.
Greater Depth Explain if a statement is correct. Includes numbers up to 50 and no use of number tracks.

Questions 3, 6 and 9 (Problem Solving)
Developing Identify the missing digit card when creating a number track. Includes numbers up to 50 and use of partially completed number tracks which do not cross 10. Expected Identify the missing digit card when creating a number track. Includes numbers up to 50 and use of partially completed number tracks with only start and end numbers given.
Greater Depth Identify the missing digit cards when creating a number track. Includes numbers up to 50 and no number track template.

## More Year 1 Place Value resources.

Did you like this resource? Don't forget to review it on our website.

1a．Lola has made the number 33.


Do you agree？Explain your answer．

2a．Harry is counting forwards．

$$
\begin{array}{|l|l|l|l|l|l|l|}
\hline 21 & 22 & 23 & 24 & 25 & 26 & 27 \\
\hline
\end{array}
$$

He says，


Is Harry correct？Prove it．

3a．Eliza is counting backwards from 50 to 43 using the digit cards below．


|  | 44 |  | 46 |  | 48 |  | 50 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |

Which digit card is missing？
吅

1b．Imran has made the number 27.


Do you agree？Explain your answer．

2b．Lin is counting backwards．

$$
\begin{array}{|l|l|l|l|l|l|l|}
\hline 43 & 44 & 45 & 46 & 47 & 48 & 49 \\
\hline
\end{array}
$$

She says，


Is Lin correct？Prove it．

## 吅

3b．Josh is counting forwards from 31 to 38 using the digit cards below．


| 31 |  | 33 |  | 35 |  | 37 |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |

Which digit card is missing？風

4a. Sam has made the number 37.
$\square$


Do you agree? Explain your answer.


5a. Fozia is counting backwards.

| 39 |  |  |  |  |  |  |  |  | 48 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |

She says,


Is Fozia correct? Prove it.

6a. Rory is counting forwards from 19 to 27 using the digit cards below.


| 19 |  |  |  |  |  |  | 26 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |

Which digit card is missing?

4b. Milly has made the number 22.


Do you agree? Explain your answer.

| 28 |  |  |  |  |  |  |  |  | 37 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |

He says,


Is Alfie correct? Prove it.

6b. Jemma is counting backwards from 42 to 34 using the digit cards below.


| 34 |  |  |  |  |  |  | 41 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |

Which digit card is missing?令

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Lucy thinks there are 50 pom poms altogether.

Do you agree? Explain your answer.

7b. There are 10 plums in a bowl.


Tom thinks there are 37 plums altogether.

Do you agree? Explain your answer.

8b. Sophie is counting backwards.

She says,


If I count backwards from 36 to 27 , I will say 37.

Is Sophie correct? Prove it.

9a. Rory is counting backwards from 50 to 41 using the digit cards below.


Which digit cards are missing?


Which digit cards are missing? $G D$

## Reasoning and Problem Solving Numbers to 50

## Developing

1a. No, Lola has made the number 32. She has 3 groups of 10 and a 2 .
2a. Harry is incorrect because he will say
$21,22,23,24,25,26,27$.
3a. 47

## Expected

4a. No, Sam has made the number 36. He has 3 groups of 10 and a 6 .
5 a . Fozia is correct because she will say $48,47,46,45,44,43,42,41,40,39$.
6a. 23

## Greater Depth

7 a . Yes, there are 5 groups of 10 so there are 50 pom poms altogether.
8 a . Lee is correct because he will say 26 , $27,28,29,30,31,32,33,34,35$.
9a. 48, 45 and 43

Reasoning and Problem Solving Numbers to 50

## Developing

1b. Yes, Imran has made the number 27. He has 2 groups of 10 and a 7 .
2b. Lin is correct because she will say 49,
$48,47,46,45,44,43$.
3b. 32

## Expected

4b. Yes, Milly has made the number 22. She has 2 groups of 10 and a 2.
5b. Alfie is incorrect because he will say
$28,29,30,31,32,33,34,35,36,37$.
6b. 40

## Greater Depth

7b. No, there are 3 groups of 10 and a 5 so there are 35 plums altogether.
8b. Sophie is incorrect because she will say $36,35,34,33,32,31,30,29,28,27$.
9b. 42,44 and 45

