

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 Identify whether the pictorial representation corresponds with the given number. Includes numbers up to 50 and with ten frames and counters to show grouping.

Expected Identify 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 Identify 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.

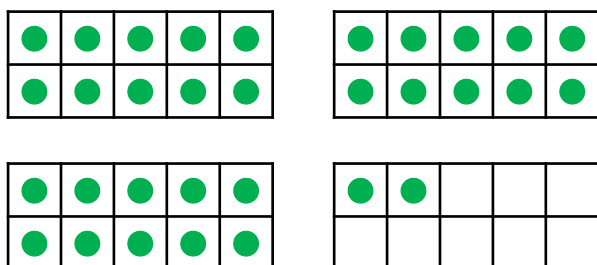
Greater Depth Identify the missing digit cards when creating a number track. Includes numbers up to 50 and no number track template.

More [Year 1 Place Value](#) resources.

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

Numbers to 50

1a. Lola has made the number 33.



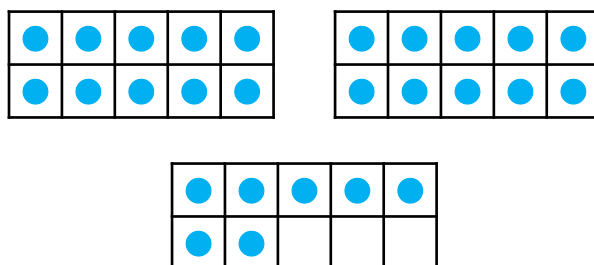
Do you agree? Explain your answer.



R

Numbers to 50

1b. Imran has made the number 27.



Do you agree? Explain your answer.



R

2a. Harry is counting forwards.

21	22	23	24	25	26	27
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He says,



If I count forwards from 21 to 27, I will say 28.

Is Harry correct? Prove it.



R

2b. Lin is counting backwards.

43	44	45	46	47	48	49
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She says,



If I count backwards from 49 to 43, I will say 45.

Is Lin correct? Prove it.



R

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

49	43	45
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	44		46		48		50
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Which digit card is missing?



PS

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

38	36	34
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31		33		35		37	
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Which digit card is missing?

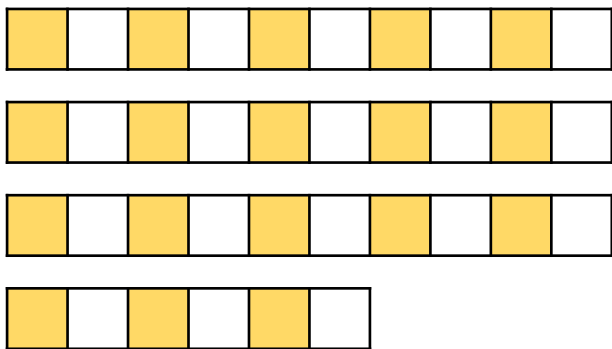


PS

Numbers to 50

Numbers to 50

4a. Sam has made the number 37.

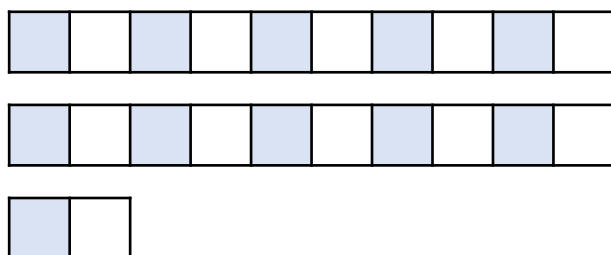


Do you agree? Explain your answer.



R

4b. Milly has made the number 22.



Do you agree? Explain your answer.



R

5a. Fozia is counting backwards.



She says,



If I count backwards from 48 to 39, I will say 43.

Is Fozia correct? Prove it.



R

5b. Alfie is counting forwards.



He says,



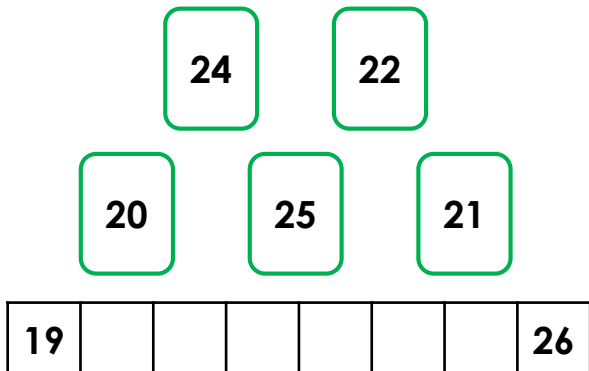
If I count forwards from 28 to 37, I will say 38.

Is Alfie correct? Prove it.



R

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

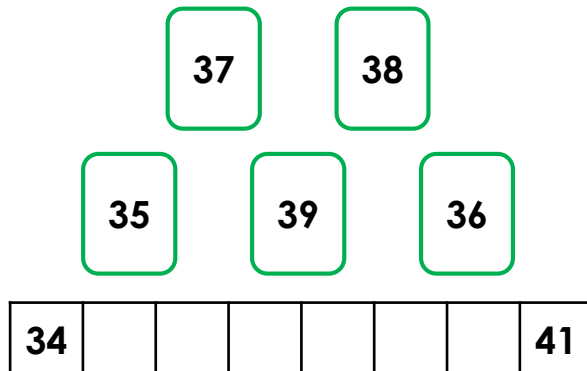


Which digit card is missing?



PS

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



Which digit card is missing?



PS

Numbers to 50

7a. There are 10 pom poms in a jar.



Lucy thinks there are 50 pom poms altogether.

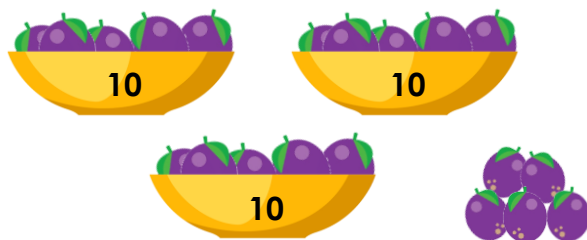
Do you agree? Explain your answer.



R

Numbers to 50

7b. There are 10 plums in a bowl.



Tom thinks there are 37 plums altogether.

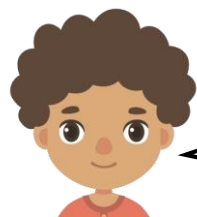
Do you agree? Explain your answer.



R

8a. Lee is counting forwards.

He says,



If I count forwards from 26 to 35, I will say 33.

Is Lee correct? Prove it.



R

8b. Sophie is counting backwards.

She says,



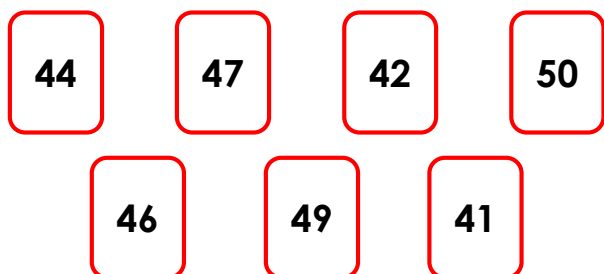
If I count backwards from 36 to 27, I will say 37.

Is Sophie correct? Prove it.



R

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

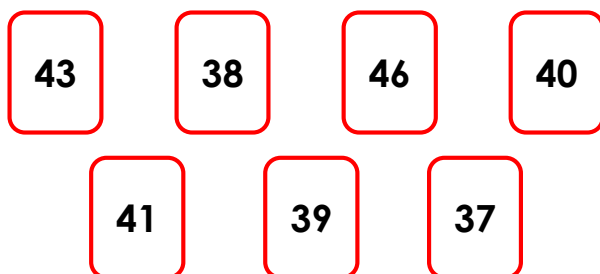


Which digit cards are missing?



PS

9b. Will is counting forwards from 37 to 46 using the digit cards below.



Which digit cards are missing?



PS

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.
5a. Fozia is correct because she will say 48, 47, 46, 45, 44, 43, 42, 41, 40, 39.
6a. 23

Greater Depth

- 7a. Yes, there are 5 groups of 10 so there are 50 pom poms altogether.
8a. 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