

Reasoning and Problem Solving

Step 3: Represent Numbers to 50

National Curriculum Objectives:

Mathematics Year 1: (1N2a) [Count, read and write numbers to 100 in numerals](#)

Mathematics Year 1: (1N4) [Identify and represent numbers using objects and pictorial representations including the number line, and use the language of: equal to, more than, less than \(fewer\), most, least](#)

Mathematics Year 1: (1N2c) [Read and write numbers from 1 to 20 in numerals and words](#)

Differentiation:

Questions 1, 4 and 7 (Reasoning)

Developing Identify and explain the odd one out of 4 numbers to 30. Includes numerals only.

Expected Identify and explain the odd one out of 5 numbers to 50. Includes numerals only.

Greater Depth Identify and explain the odd one out of 5 numbers to 50. Includes numerals and words.

Questions 2, 5 and 8 (Problem Solving)

Developing Use a given number of counters and a place value grid to represent 3 numbers to 30 and identify the number of tens and ones in each number created. Includes pictorials and numerals only.

Expected Use a given number of counters and a place value grid to represent 3 numbers to 50 and identify the number of tens and ones in each number created. Includes pictorials and numerals only.

Greater Depth Use a given number of counters and a place value grid to represent 3 numbers to 50 and identify the number of tens and ones in each number created. Includes words only.

Questions 3, 6 and 9 (Reasoning)

Developing Explain if there is enough Base 10 to represent a given range of numbers to 30.

Expected Explain if there is enough Base 10 to represent a given range of numbers to 50.

Greater Depth Explain if there are enough manipulatives to represent a given range of numbers to 50.

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

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

Represent Numbers to 50

Represent Numbers to 50

1a. Circle the odd one out.

11

24

12

13

Explain your reasoning.



R

1b. Circle the odd one out.

26

27

15

28

Explain your reasoning.



R

2a. Use the place value grid to represent 3 different numbers using all 4 counters. Your number must be no bigger than 30.

Tens	Ones

Complete the sentence for each number:
There are ___ tens and ___ ones in the number ___.



PS

2b. Use the place value grid to represent 3 different numbers using all 5 counters. Your number must be no bigger than 30.

Tens	Ones

Complete the sentence for each number:
There are ___ tens and ___ ones in the number ___.



PS

3a. Dan says,



I can represent all of the numbers from 1 to 20 using the Base 10.



Is he correct? Prove it.



R

3b. Jess says,



I can represent all of the numbers from 1 to 30 using the Base 10.



Is she correct? Prove it.



R

Represent Numbers to 50

Represent Numbers to 50

4a. Circle the odd one out.

23

53

33

43

38

Explain your reasoning.



R

4b. Circle the odd one out.

39

29

28

22

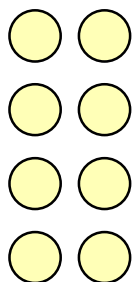
21

Explain your reasoning.



R

5a. Use the place value grid to represent 3 different numbers using all 8 counters. Your number must be no bigger than 50.



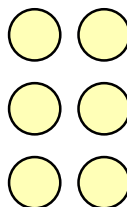
Tens	Ones

Complete the sentence for each number:
There are ___ tens and ___ ones in the number ___.



PS

5b. Use the place value grid to represent 3 different numbers using all 6 counters. Your number must be no bigger than 50.



Tens	Ones

Complete the sentence for each number:
There are ___ tens and ___ ones in the number ___.

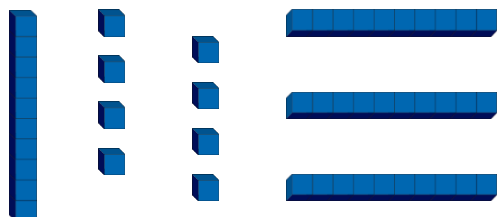


PS

6a. Tom says,



I can represent all of the numbers from 1 to 40 using the Base 10.



Is he correct? Prove it.

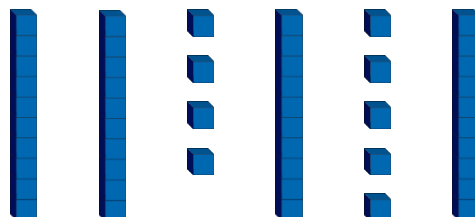


R

6b. Lily says,



I can represent all of the numbers from 1 to 50 using the Base 10.



Is she correct? Prove it.



R

Represent Numbers to 50

Represent Numbers to 50

7a. Circle the odd one out.

40

thirty

sixteen

fifty

20

Explain your reasoning.



R

7b. Circle the odd one out.

25

fifty

fifteen

forty five

35

Explain your reasoning.



R

8a. Use the place value grid and nine counters to represent three different numbers. Your number must be bigger than twenty and smaller than fifty.

Tens	Ones

Complete the sentence for each number:
There are ___ tens and ___ ones in the number ___.



PS

8b. Use the place value grid and ten counters to represent three different numbers. Your number must be bigger than fifteen and smaller than fifty.

Tens	Ones

Complete the sentence for each number:
There are ___ tens and ___ ones in the number ___.

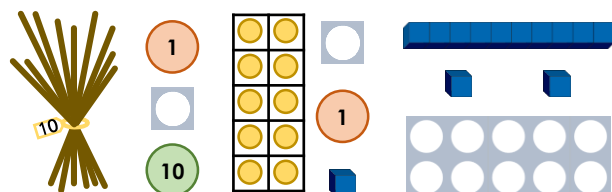


PS

9a. Mo says,



I can represent all of the numbers from 1 to 50 using the materials.



Is he correct? Prove it.

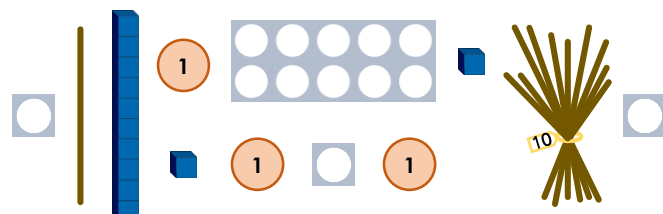


R

9b. Anna says,



I can represent all of the numbers from 1 to 40 using the materials.



Is she correct? Prove it.



R

Reasoning and Problem Solving Represent Numbers to 50

Developing

1a. 24 is the odd one out because it is the only number which does not have one ten.

2a. Various answers; for example: There are 2 tens and 2 ones in the number 22.

3a. Dan is not correct because he does not have any ones so he can only represent 10 and 20.

Expected

4a. 38 is the odd one out because it is the only number which does not have three ones.

5a. Various answers; for example: There are 4 tens and 4 ones in the number 44.

6a. Tom is not correct because there are only 8 ones so he could not represent the numbers 9, 19, 29 and 39.

Greater Depth

7a. Sixteen is the odd one out because it is the only number which does not have zero ones.

8a. Various answers; for example: There are 2 tens and 7 ones in the number 27.

9a. Mo is not correct because there are only 7 ones so he could not represent the numbers 8, 9, 18, 19, 28, 29, 38, 39, 48 and 49.

Reasoning and Problem Solving Represent Numbers to 50

Developing

1b. 15 is the odd one out because it is the only number which does not have two tens.

2b. Various answers; for example: There are 2 tens and 3 ones in the number 23.

3b. Jess is not correct because she does not have any tens so she can only represent the numbers 1 to 9.

Expected

4b. 39 is the odd one out because it is the only number which does not have two tens.

5b. Various answers; for example: There are 4 tens and 2 ones in the number 42.

6b. Lily is not correct because there are only 4 tens so she could not represent the number 50.

Greater Depth

7b. Fifty is the odd one out because it is the only number which does not have five ones.

8b. Various answers; for example: There are 3 tens and 7 ones in the number 37.

9b. Anna is not correct because there are only 3 tens so she could not represent the number 40.