## Reasoning and Problem Solving Step 3: Comparing Numbers 1

## National Curriculum Objectives:

Mathematics Year 1: (1N4) <u>Identify and represent numbers using objects and pictorial</u> representations including the number line, and use the language of: equal to, more than, less than (fewer), most and least

## Differentiation:

Questions 1, 4 and 7 (Problem Solving)

**Developing** Follow the clue and draw matching numbers on the place value grids. 1 clue given and 2 possibilities drawn as answers. Numbers are within 50 using equal to, more than or less than.

Expected Follow the clues and draw matching numbers on the place value grids. 2-step clues given and 2 possibilities drawn as answers. Numbers are within 100 using equal to, more than, less than and the inequality symbols.

Greater Depth Follow the clues and draw matching numbers on the place value grids. 4 clues given and all possibilities given as answers. Numbers are up to 100 using equal to, more than, less than, fewer, greater and the inequality symbols.

### Questions 2, 5 and 8 (Problem Solving)

Developing Label the number line with 2 numbers using 1-step clues. Number line spans ten numbers. Clues use equal to, more than or less than.

Expected Label the number line with 2 numbers using 2-step clues. Number line spans twenty numbers. Clues use equal to, more than less than and the inequality symbols. Greater Depth Label the number line with 3 numbers using 2-step clues. Number lines vary in length. Clues use equal to, more than, less than, fewer, greater and the inequality symbols.

### Questions 3, 6 and 9 (Reasoning)

Developing Explain whether the 1-step statement is true or false where statements use equal to, more than or less than.

Expected Explain whether the 2-step statement is true or false where statements use equal to, more than, less than and the inequality symbols.

Greater Depth Explain whether the statement is correct when comparing the two representations of numbers. Statements use equal to, more than, less than, fewer, greater and the inequality symbols.

## More <u>Year 1 Place Value</u> resources.

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Reasoning and Problem Solving – Comparing Numbers 1 – Year 1 Developing



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Reasoning and Problem Solving – Comparing Numbers 1 – Year 1 Expected

Comparing Numbers 1	Comparing Numbers 1
7a. Read the clues.	7b. Read the clues.
The most I can be is 85. I am greater than 65. I have fewer than 4 ones. I have > 6 tens. Write or draw all the possible numbers.	The least I can be is 40. I am fewer than 65. I have < 6 tens. I have greater than 7 ones. Write or draw all the possible numbers.
PS	PS
8a. Label the number line to show:	8b. Label the number line to show:
A number < 45 but > 40. A number greater than 50 but the most it can be is 55. A number with 3 tens but which is fewer than 37.	A number < 75 but the least it can be is 60. A number with 2 ones which is > 65. A number which has more than 7 tens but less than 7 ones.
	50 100
20 00	50 100
PS	PS
9a. Matt has: Esmay has:	9b. Ruth has: Ashanti has:
	20 <sup>2</sup>
Matt says,	Ruth says,
because I have a greater number of objects.	We have equal tens and ones.
Is he correct? Explain why.	Is she correct? Explain why.
R	R
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Reasoning and Problem Solving – Comparing Numbers 1 – Year 1 Greater Depth

### <u>Reasoning and Problem Solving</u> <u>Comparing Numbers 1</u>

#### Developing

1a. Any two numbers less than 30 represented correctly in the grids.
2a. A number drawn more than halfway along the number line and correctly labelled. 42 drawn less than halfway along the number line and correctly labelled.

3a. Pam is incorrect because her number has 5 tens and 8 ones so represents 58 which is less than 60.

### **Expected**

4a. Any two numbers between 56 and 63 represented correctly in the grids.
5a. A number drawn less than halfway along the number line and correctly labelled. 45 or 55 drawn correctly on the number line and labelled.

6a. Max's number is 77 so he is incorrect because his number is 2 more than 75.

#### Greater Depth

7a. 70, 71, 72, 73 and 80 all written or drawn correctly. 8a. 41, 42, 43 or 44 correctly drawn and

labelled on the number line. 51, 52, 53, 54 or 55 correctly drawn and labelled on the number line.

30, 31, 32, 33, 34, 35 or 36 correctly drawn and labelled on the number line.

9a. Matt is incorrect because his counters represent 47 and Esmay's money represents 54p so Esmay has the most.

### <u>Reasoning and Problem Solving</u> <u>Comparing Numbers 1</u>

#### Developing

1b. Any two numbers between 40 and 50 represented correctly in the grids.
2b. A number drawn less than halfway along the number line and correctly labelled. 27, 28 or 29 correctly drawn and labelled on the number line.

3b. Raj is correct because his number has 3 tens and 6 ones which is equal to 36.

### **Expected**

4b. Any two numbers between 65 and 75 represented correctly in the grids. 5b. 77, 78 or 79 drawn correctly on the number line and labelled. 86, 87 or 88 correctly drawn on the number line and labelled.

6b. Rhia is correct because her number has 5 tens and 2 ones so represents 52 which is less than 55 but more than 45.

#### Greater Depth

7b. 48, 49, 58, 59 all written or drawn correctly.

8b. A number between 60 and 75 correctly drawn and labelled on the number line.

72, 82 or 92 correctly drawn and labelled on the number line.

A number between 80 and 87 or a number between 90 and 97 all correctly drawn and labelled on the number line.

9b. Ruth is correct. They both represent 76. Ashanti has 7 tens and 6 ones. Ruth's money is equal to 7 ten pence coins and 6 one pence coins.

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Reasoning and Problem Solving – Comparing Numbers 1 ANSWERS