

Place Value Question 13 a and b

Objective: I can say ten more and ten less than a 4 digit number

I can say one hundred more and less than a 4 digit number.

Assessment Question

123 Number + Place Value	Question 13 a : I can find 10 more or 10 less than a number	I feel
Answer these sums:		
$1046 + 10 =$	$1568 - 10 =$	
$2678 + 10 =$	$9821 - 10 =$	
$8798 + 10 =$	$4603 - 10 =$	
$5992 + 10 =$	$2002 - 10 =$	

123 Number + Place Value	Question 13 b : I can find 100 more or less than a number	I feel
Answer these sums:		
$4698 + 100 =$	$1890 - 100 =$	
$7240 + 100 =$	$5432 - 100 =$	
$2191 + 100 =$	$2009 - 100 =$	
$6909 + 100 =$	$7087 - 100 =$	

Teacher Notes:

Once the children have organised and grouped objects over a thousand, ensure that the children have regular opportunities to count from different 4 digit numbers. Explore counting forward and back in ten and hundred from different 4 digit amounts and ensure that the children have opportunities to cross boundaries of hundred and thousand.

Explore counting from different numbers as a class. Discuss the pattern in numbers and which numbers are easy to count on and back from and which ones are more difficult. Use a place value chart for children who are having difficulty with crossing boundaries of hundred and thousand. Objects or base ten can also be used alongside examples to model making a new group of hundred and thousand and that is why a digit in the next column changes. Also explore how this works when subtracting and counting backwards.

Practice Activities

Purple Practice: most suited for children who show difficulty in Question 13a of the prior learning assessment and will benefit from focusing on adding and subtracting ten without crossing boundaries of hundred or thousand.

For the purple task the children are presented with a track which they are to move their way along working out ten more and ten less for four digit amounts. The layout of the sums should support the children in identifying that the ten digit changes when 10 is added or subtracted. The children do not cross a boundary of hundred in this activity. You may want to children to time how long it takes to complete the track or race against a partner.

If any pupils are having difficulty, the children can focus on the first 6 boxes where the amounts do not exceed 3000 or place value charts may help.

Green Practice: Most suited for children who made some errors in Question 13b and will benefit from adding and subtracting one hundred without crossing boundaries of a thousand.

For the green task the children are presented with a track which they are to move their way along working out one hundred more and less for four digit amounts. The layout of the sums should support the children in identifying that the hundred digit changes when 100 is added or subtracted. The children do not cross a boundary of a thousand in this activity.

Yellow Practice: Most suited for children who show accuracy in the top sections of Question 13 a and b however make errors when presented with amounts where they are required to cross a hundred or thousand boundary.

For the yellow activity the children are presented with 2 spinners. The children are to spin the spinner with amounts written on in words. The children may want to record the amount down in digits, applying skills from previous lessons. The children are then asked to spin the second spinner with -1,10,100 and +1,10, 100. They should subtract this from the amount they have written down. The children should be able to do this mentally and with some speed. The children are also given amounts where they may need to cross a boundary of ten, hundred or thousand.

Mastery: - reasoning and fluency

For the mastery task the children are presented with 4 sums that have been worked out. Encourage the children to discuss any errors that have been made and to discuss the efficiency of using a written method for these sums.

Key questions:

How do they know an error has been made? What can you do to improve this? Why do you think an error has been made? Explain how the use of place value can help? Is a written method appropriate here? Has it made the sum easier to work out?

Answers:

Purple:

753	826	1820	1018	2931	1351
5305	5650	3081	6592	7318	9901
8283	8388				

Green:

545	1189	2173	1828	2681	1441
5009	5795	3191	6682	7470	9899
8781	7870				

Mastery :

574		1564		656		1646
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Work your way along the track finding the answers for each question. As you get more confident, can you move quickly?

$$\begin{array}{r} 763 \\ - 10 \end{array}$$

$$\begin{array}{r} 816 \\ + 10 \end{array}$$

$$\begin{array}{r} 1810 \\ + 10 \end{array}$$

$$\begin{array}{r} 1028 \\ - 10 \end{array}$$

$$\begin{array}{r} 2941 \\ - 10 \end{array}$$

$$\begin{array}{r} 3091 \\ - 10 \end{array}$$

$$\begin{array}{r} 5660 \\ - 10 \end{array}$$

$$\begin{array}{r} 5315 \\ - 10 \end{array}$$

$$\begin{array}{r} 1341 \\ + 10 \end{array}$$

$$\begin{array}{r} 6582 \\ + 10 \end{array}$$

$$\begin{array}{r} 7308 \\ + 10 \end{array}$$

$$\begin{array}{r} 9911 \\ - 10 \end{array}$$

$$\begin{array}{r} 8293 \\ - 10 \end{array}$$

$$\begin{array}{r} 8378 \\ + 10 \end{array}$$

Work your way along the track finding the answers for each question. As you get more confident, can you move quickly?

$$\begin{array}{r} 645 \\ -100 \end{array}$$

$$\begin{array}{r} 1089 \\ +100 \end{array}$$

$$\begin{array}{r} 2073 \\ +100 \end{array}$$

$$\begin{array}{r} 1928 \\ -100 \end{array}$$

$$\begin{array}{r} 2781 \\ -100 \end{array}$$

$$\begin{array}{r} 3091 \\ +100 \end{array}$$

$$\begin{array}{r} 5895 \\ -100 \end{array}$$

$$\begin{array}{r} 5109 \\ -100 \end{array}$$

$$\begin{array}{r} 1341 \\ +100 \end{array}$$

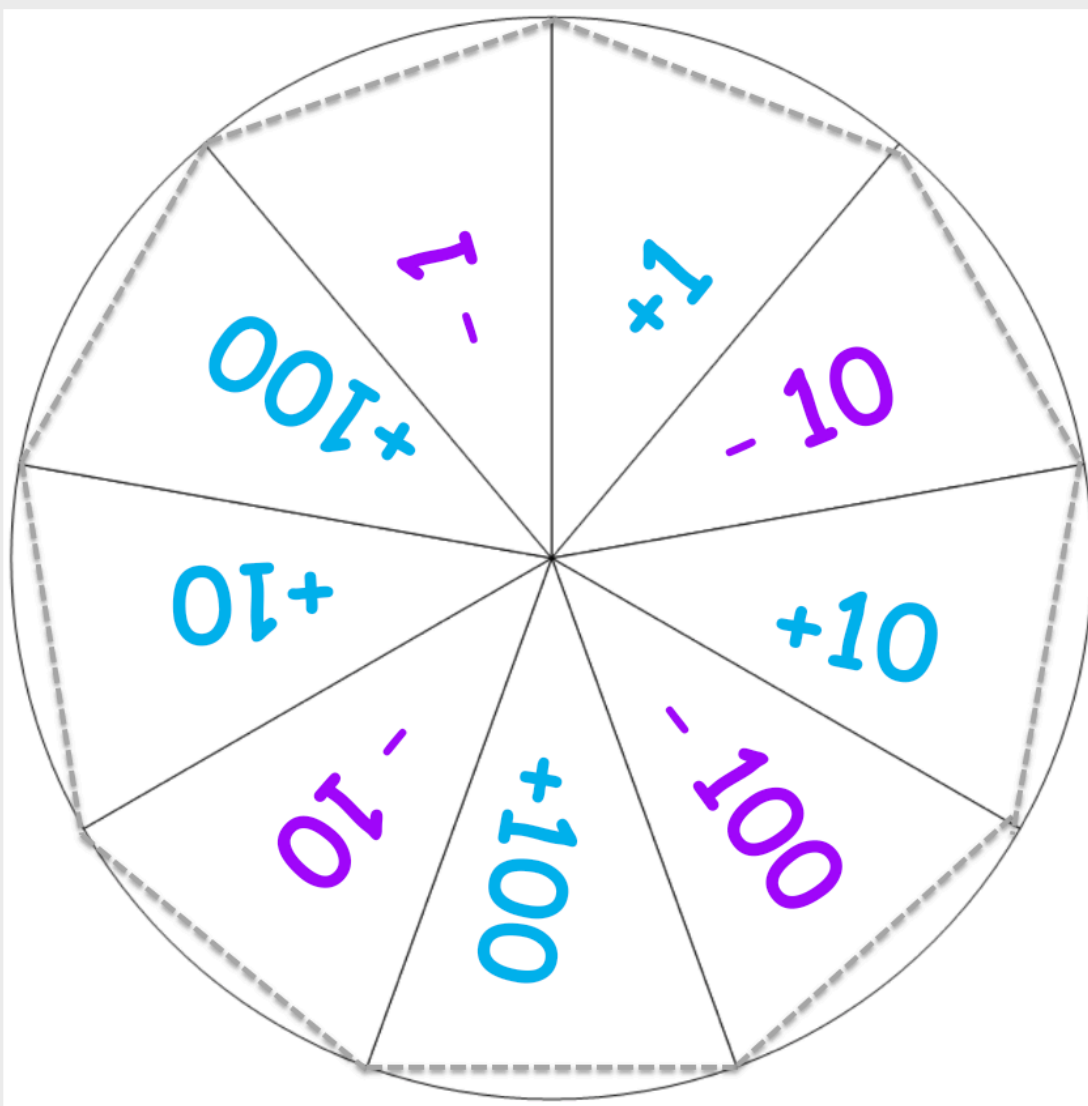
$$\begin{array}{r} 6582 \\ +100 \end{array}$$

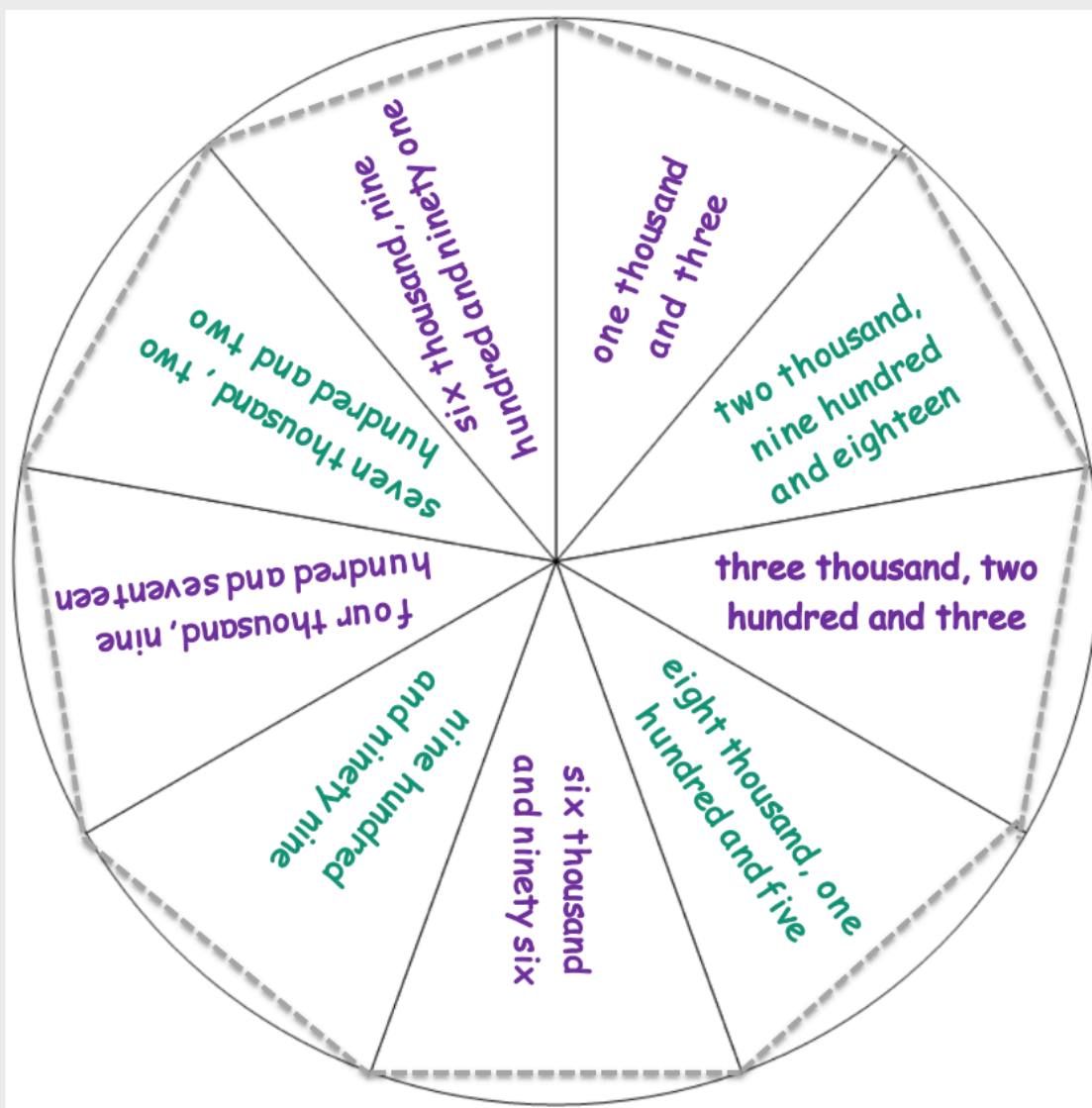
$$\begin{array}{r} 7370 \\ +100 \end{array}$$

$$\begin{array}{r} 9999 \\ -100 \end{array}$$

$$\begin{array}{r} 8881 \\ -100 \end{array}$$

$$\begin{array}{r} 7770 \\ +100 \end{array}$$





Look at the working out for each sum. Can you spot any mistakes that have been made? Can you correct each answer?

$$564 + 10 =$$

$$\begin{array}{r} 564 \\ + 10 \\ \hline 664 \\ \hline \end{array}$$

$$1364 + 200 =$$

$$\begin{array}{r} 1364 \\ + 200 \\ \hline 3364 \\ \hline \end{array}$$

$$756 - 100 =$$

$$\begin{array}{r} 756 \\ - 10 \\ \hline 746 \\ \hline \end{array}$$

$$4646 - 300 =$$

$$\begin{array}{r} 4646 \\ - 300 \\ \hline 1646 \\ \hline \end{array}$$

Do you think that each child has used the appropriate strategy to work out the answer? Model how you have worked out each answer.