



1)




			6050
			7500
			3025

There are many correct representations; this is one example.

2)



	+ 100	-10	+ 1000	- 100
3036	3136	3026	4036	2936
6905	7005	6895	7905	6805
6812	6912	6802	7812	6712
8750	8850	8740	9750	8650
<p>What happens to the original number as you add or subtract each multiple of 10?</p>	<p><i>When you add 100, only the hundreds digit changes unless you cross the thousands boundary.</i></p>	<p><i>When you subtract 10, only the tens digit changes unless you cross the hundreds boundary.</i></p>	<p><i>When you add 1000, only the thousands digit changes unless you cross the tens of thousands boundary.</i></p>	<p><i>When you subtract 100, only the hundreds digit changes unless you cross the thousands boundary.</i></p>

1) a)

 Juan "My number is four thousand less than Fabian's number."	 Josie "The digit sum of my number is 15."	 Rachael "I have the greatest number."
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19 305	9035	19 350	5145	15 305
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 Fabian "My number is four thousand more than Juan's number."	 Betsy "My number is divisible by 5."
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b) Multiple answers possible. Children may suggest that Betsy's clue is the least helpful, as all the numbers are divisible by 5 and therefore her clue does not eliminate any numbers; they might also suggest that Juan's or Fabian's clues are the least helpful, as they both express the same clue in different ways.

1) Example answer: Ahmed is incorrect. The correct answer is 14 006. He has added on 100 too many, which is a common error when counting through the thousands.

1) a) Multiple answers possible, such as 10 503, 11 103 or 12 903. The positive number must be less than 13 000 and have zero tens and three ones.

b) Multiple answers possible, such as 18 703, 20 003 or 25 103. The number must be more than 18 000 and have zero tens and three ones.

c) Multiple answers possible; accept any negative number that ends in 97. Children might identify the first positive number he may have said as being 3 and then subtract 100 from this, giving -97.

2) There is more than one possibility. For example, he may have followed the instructions: + 100, - 1000, - 10, + 1000.





1) Complete the table by identifying what is missing from each representation of the following three numbers. You could use the resources shown to make each number to help you.


				6050
			7500	
			3025	

2) Complete the table.


	+ 100	-10	+ 1000	- 100
3036				
6905				
			7812	
				8650
What happens to the original number as you add or subtract each multiple of 10?				




1) a) Use the clues to match each number card to the correct child.



Juan
"My number is four thousand less than Fabian's number."



Josie
"The digit sum of my number is 15."



Rachael
"I have the greatest number."


19 305

9035


19 350

5145

15 305



Fabian
"My number is four thousand more than Juan's number."



Betsy
"My number is divisible by 5."

b) Whose clue do you think is the least helpful? Why?

2) Ahmed says:



$$13\ 906 + 100 = 14\ 106$$

Do you agree with him? Explain your answer.



1) Jerry is counting up in steps of 100 from a given number. He has reached 15 703.

a) Give any three positive numbers less than 13 000 that he would have said.

b) Give any three numbers greater than 18 000 that he will say if he continues counting up in hundreds.

c) If Jerry had started counting from a negative number, what number could this have been? Explain your answer.

2) Pablo started with the number 12 705 and, after following four instructions from the cards below, he now has the number 12 795.

+10

+100

+1000

-10

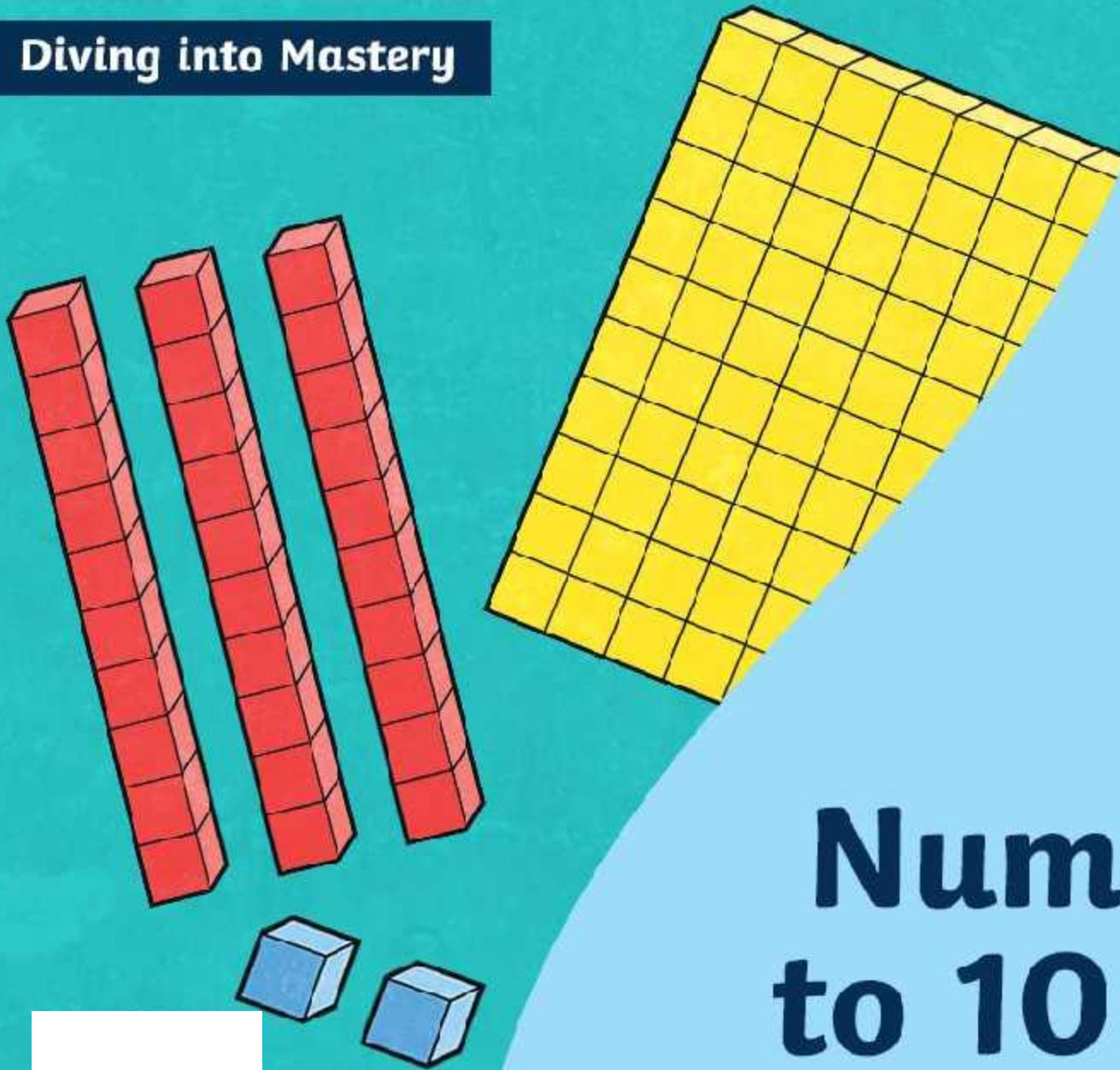
-100

-1000

Which four instructions could he have followed from the cards above?

Is there more than one possibility? He can only use each card once in each set of instructions.

Diving into Mastery

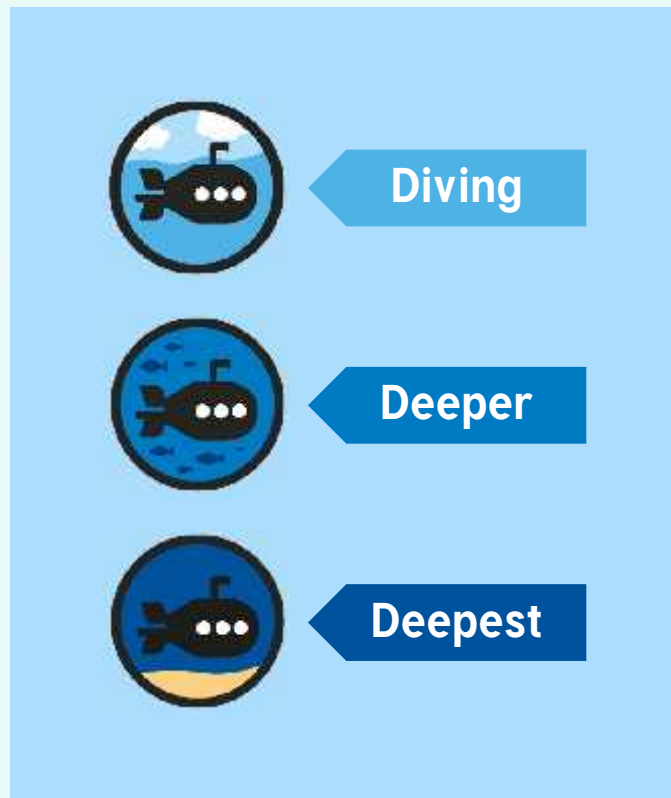


Numbers to 10 000



Diving into Mastery Guidance for Educators

Each activity sheet is split into three sections, diving, deeper and deepest, which are represented by the following icons:



These carefully designed activities take your children through a learning journey, initially ensuring they are fluent with the key concept being taught; then applying this to a range of reasoning and problem-solving activities.

These sheets might not necessarily be used in a linear way. Some children might begin at the 'Deeper' section and in fact, others may 'dive straight in' to the 'Deepest' section if they have already mastered the skill and are applying this to show their depth of understanding.

Aims

- Read, write, order and compare numbers to at least 1 000 000 and determine the value of each digit.
- Count forwards or backwards in steps of powers of 10 for any given number up to 1 000 000.



Complete the table by identifying what is missing from each representation of the following three numbers.

You could use the resources shown to make each number to help you.

			<p>8105</p>
			<p>3075</p>
		<p>Accept any correct model, such as:</p>	<p>5535</p>



Complete the table.

	+10	-100	+100	+1000
5109				
3260				
		7019		
		9520		



Use the clues to correctly match the number card to the child.

12 030

3325

9030

5549

10 527

Callum

My number is divisible by 5.



Tommy

The digit sum of my number is 23.



Alesha

My number is 3000 more than Moira's number.



Zuli

My number has five digits.



Moira

My number is a multiple of 10.





Amara is counting in steps of 100 from 9105. She thinks that she will say the number 10 005.

Do you agree with her?

Discuss this with a partner to make sure you can explain your thinking clearly.

Amara is correct. She will count up to 9905 and then the next number will be 10 005.

Can you and your partner think of three other numbers that she would say?



I am counting forwards in steps of 1000.

I have just said 8106.

If I started counting backwards, what would be the first negative number I would say? Prove it!

-894.106 is the last positive number that I would say; if I subtracted 1000 from this, I would get -894.





Mustafa started with the number 8503.
After following four instructions from the
cards below, he now has the number 8593.

Which four instructions could he have
followed from the cards below?

He can only use each card once in each set
of instructions.

Is there more than one possibility?



+10

+100

+1000

-10

-100

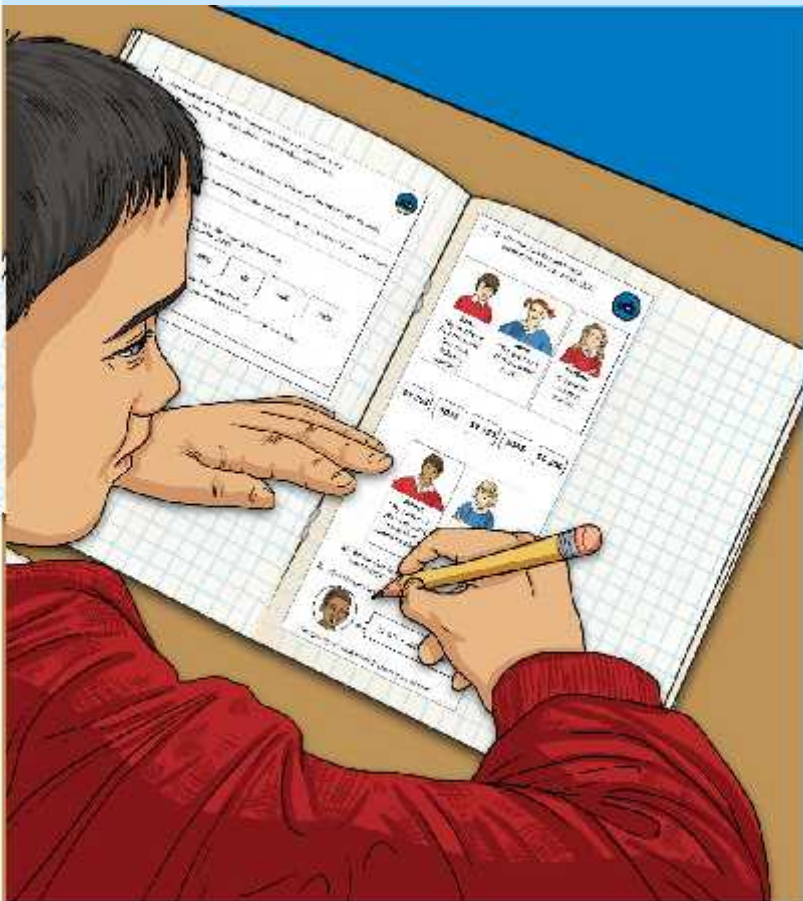
-1000

*There is more than one possibility. Here is one example:
- 1000, + 100, - 10, + 1000*

Did you find
a different
possibility?

Numbers to 10 000

Dive in by completing your own activity!



11. Read the number and write the number of thousands, hundreds, tens and units. Write the number in the box.

				6000
				7500
				3075

12. Complete the table.

	+100	+99	+1000	+1000
2230				
4000			3075	
			1000	

13. Write the number in the box.

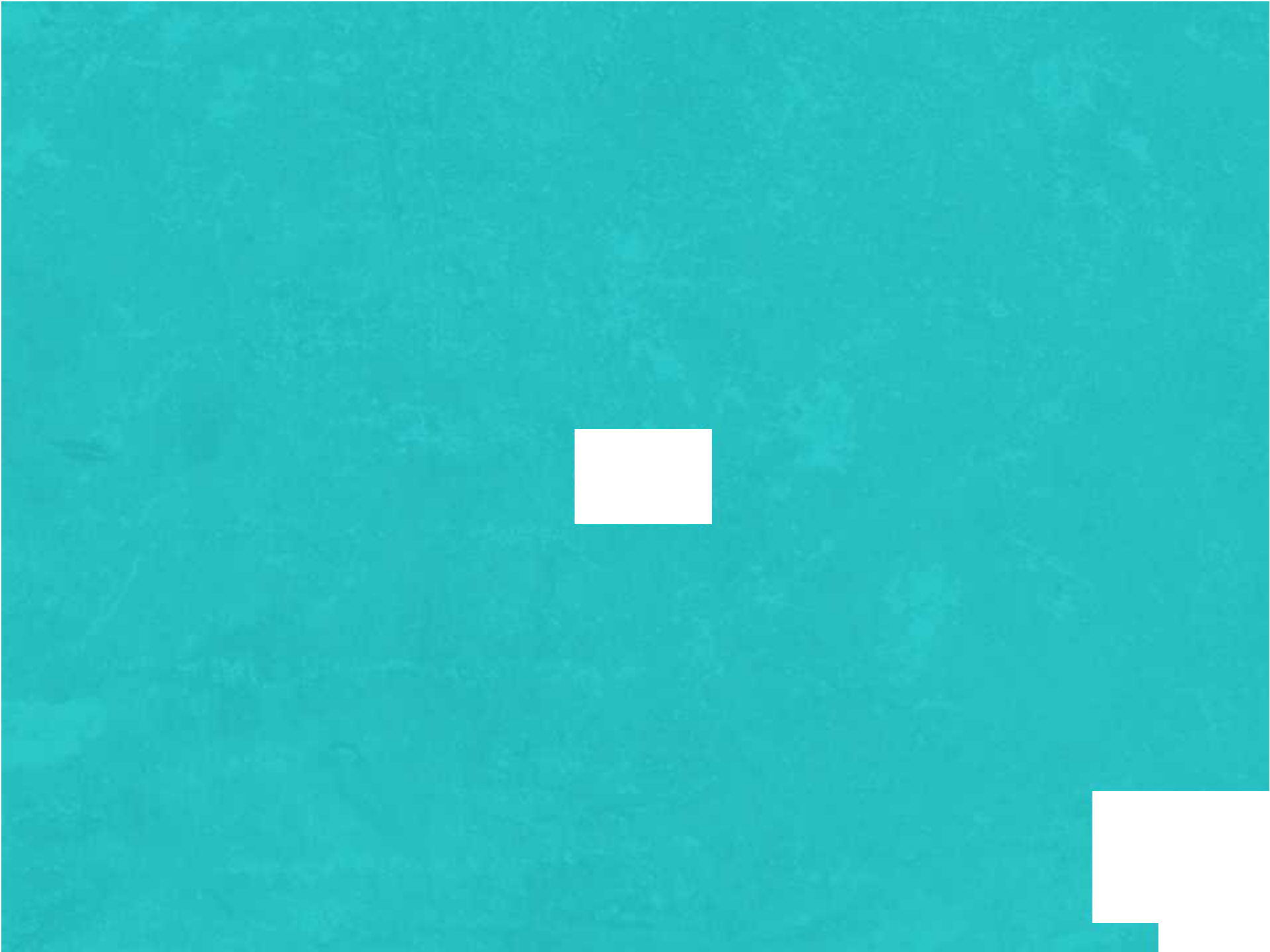
	+100	+99
2230		
4000		

14. Write the number in the box.

	+100	+99
2230		
4000		

15. Write the number in the box.

	+100	+99
2230		
4000		



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+1000

-10

-100

-1000

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