



- 1) a) 5 209 322.011  
b) 8 080 718.242

2)

$100 + 70\ 000 + 300\ 000 + 60 + 1 + 6\ 000\ 000 + 5000 + 0.2 + 0.09$	•	•	6 375 161.29
$3\ 000\ 000 + 6000 + 40 + 4 + 90\ 000 + 100\ 000 + 100 + 0.5 + 0.07 + 0.007$	•	•	7 378 104.34
$70\ 000 + 8000 + 100 + 300\ 000 + 7\ 000\ 000 + 4 + 0.04 + 0.3$	•	•	3 196 144.577
$600 + 100\ 000 + 3\ 000\ 000 + 1000 + 70\ 000 + 10 + 3 + 0.008 + 0.1$	•	•	3 171 613.108

- 3) a)  $5\ 642\ 110.632 = 5\ 000\ 000 + 600\ 000 + 40\ 000 + 2000 + 100 + 10 + 0.6 + 0.03 + 0.002$   
 b)  $6\ 221\ 877.22 = 6\ 000\ 000 + 200\ 000 + 20\ 000 + 1000 + 800 + 70 + 7 + 0.2 + 0.02$   
 c)  $3\ 442\ 492.056 = 3\ 000\ 000 + 400\ 000 + 40\ 000 + 2000 + 400 + 90 + 2 + 0.05 + 0.006$   
 d)  $4\ 963\ 664.001 = 4\ 000\ 000 + 900\ 000 + 60\ 000 + 3000 + 600 + 60 + 4 + 0.001$

- 1) Rishi is incorrect. He has made the number 9 467 403.492. He wrote that his number had 1 ten when it has no tens and he has 6 millions, not 9 millions.



2)

Number	Partitioned Number	✓ or ×	Explanation
1 103 500.74	$500 + 0.4 + 3000 + 1\ 000\ 000 + 0.07 + 100\ 000$	×	<b>Incorrect. Holly has confused the place value of tenths and hundredths. She should have written: <math>500 + 0.04 + 3000 + 1\ 000\ 000 + 0.7 + 100\ 000</math>.</b>
5 001 741.04	$5\ 000\ 000 + 1000 + 0.04 + 1 + 40 + 700$	✓	<b>Correct.</b>
660 001.941	$60\ 000 + 0.9 + 0.04 + 0.001 + 600\ 000 + 1$	✓	<b>Correct.</b>
492 110.041	$0.4 + 0.1 + 10 + 100 + 200 + 90\ 000 + 4\ 000\ 000$	×	<b>Incorrect. Holly should have written: <math>400\ 000 + 90\ 000 + 2000 + 100 + 10 + 0.04 + 0.001</math>.</b>

- 3) Mo is correct. Showing this number with standard partitioning will produce 8 parts:  
 $3\ 000\ 000 + 400\ 000 + 10\ 000 + 3000 + 900 + 3 + 0.9 + 0.002$ .



- 1) a) All possible answers will have the same 8 digits. All possible answers will have 7 millions, 1 hundred-thousand, 2 ten-thousands, 4 thousands, 5 hundreds, 1 ten, 5 tenths and 6 hundredths.
- b) There are 27 possible answers.
- c) Children's answers will vary.

2) a) Yes, 333 720.18 could be a possible answer as it satisfies all of the clues.

b) There are 8 possible answers:

**333 720.18**

**333 801.27**

**333 801.72**

**333 720.81**

**333 702.18**

**333 810.27**

**333 810.72**

**333 702.81**



1) Look at the arrow cards below. Write the number shown.

a)  $5\ 000\ 000$   $0.01$   $9000$   $20$   $200\ 000$   $0.001$   $300$   $2$

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b)  $8\ 000\ 000$   $80\ 000$   $0.2$   $10$   $8$   $0.002$   $700$   $0.04$

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2) Match the partitioned number to the combined number.

$100 + 70\ 000 + 300\ 000 + 60 + 1 + 6\ 000\ 000 + 5000 + 0.2 + 0.09$	$6\ 375\ 161.29$
$3\ 000\ 000 + 6000 + 40 + 4 + 90\ 000 + 100\ 000 + 100 + 0.5 + 0.07 + 0.007$	$7\ 378\ 104.34$
$70\ 000 + 8000 + 100 + 300\ 000 + 7\ 000\ 000 + 4 + 0.04 + 0.3$	$3\ 196\ 144.577$
$600 + 100\ 000 + 3\ 000\ 000 + 1000 + 70\ 000 + 10 + 3 + 0.008 + 0.1$	$3\ 171\ 613.108$

3) Partition the numbers below. Write your answer as an addition calculation.

a)  $5\ 642\ 110.632$

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b)  $6\ 221\ 877.22$

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c)  $3\ 442\ 492.056$

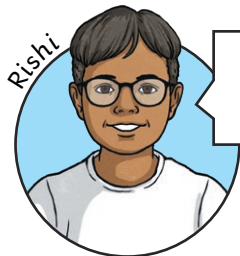
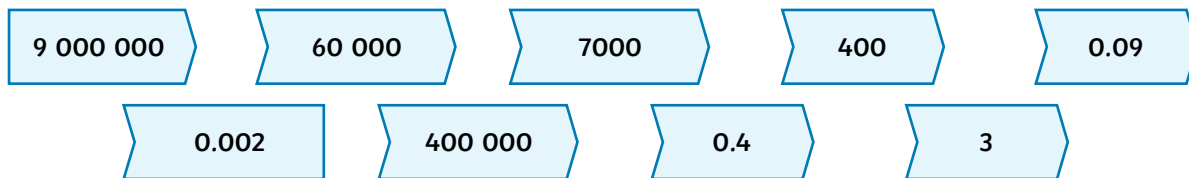
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d)  $4\ 963\ 664.001$

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1) Rishi is making numbers with arrow cards.



6 467 413.492 is the number I've made.

Do you agree with Rishi? Explain why.

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2) Holly has partitioned the numbers below. Tick or cross her answers. Correct any that need to be corrected. Explain why.

Number	Partitioned Number	✓ or ×	Explanation
1 103 500.74	500 + 0.4 + 3000 + 1 000 000 + 0.07 + 100 000		
5 001 741.04	5 000 000 + 1000 + 0.04 + 1 + 40 + 700		
660 001.941	60 000 + 0.9 + 0.04 + 0.001 + 600 000 + 1		
492 110.041	0.4 + 0.1 + 10 + 100 + 200 + 90 000 + 4 000 000		

3) Mo is thinking about the number 3 413 903.902.



Showing this number with standard partitioning will produce 8 parts

Do you agree with Mo? Prove it.

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- 1) Phoebe has made a decimal number with arrow cards. She has made a number between 7 124 510 and 7 124 513.



All the possible answers will have the same 7 digits.

- a) Do you agree with Phoebe? Explain your answer.

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- b) How many possible answers are there? Find them all.

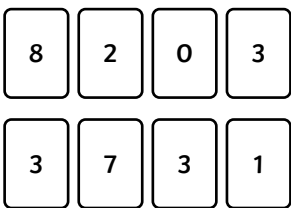
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- c) Make your own problem – similar to Phoebe’s – for a friend. Use arrow cards. Be sure to tell your friend which numbers the number you are thinking of is between.

- 2) Use the digit cards and clues to work out the number. Use all of the digit cards.



The number has 2 decimal places.  
 The 3 digits with the highest value are all the same.  
 The digits in the 2 decimal places read a number in the 9 times table.  
 The number has more than 5 hundreds.

- a) Rory thinks that 333 720.18 could be a possible answer. Do you agree?

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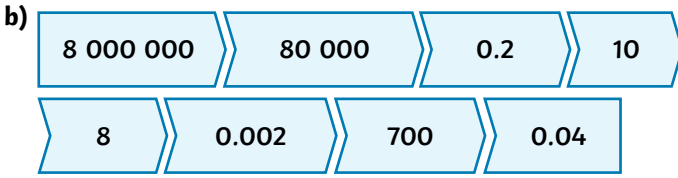
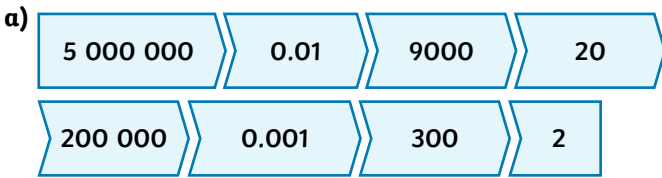
- b) Work systematically to find all the possible answers.

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- 1) Look at the arrow cards below.  
Write the number shown.



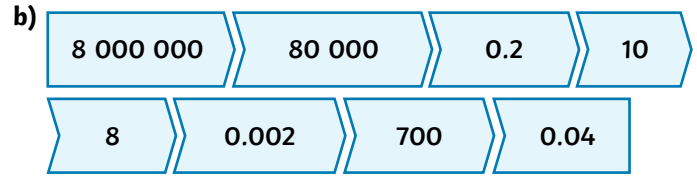
- 2) Match the partitioned number to the combined number.

$100 + 70\,000 + 300\,000 + 60 + 1 + 6\,000\,000 + 5000 + 0.2 + 0.09$	<ul style="list-style-type: none"> <li>● 6 375 161.29</li> </ul>
$3\,000\,000 + 6000 + 40 + 4 + 90\,000 + 100\,000 + 100 + 0.5 + 0.07 + 0.007$	<ul style="list-style-type: none"> <li>● 7 378 104.34</li> </ul>
$70\,000 + 8000 + 100 + 300\,000 + 7\,000\,000 + 4 + 0.04 + 0.3$	<ul style="list-style-type: none"> <li>● 3 196 144.577</li> </ul>
$600 + 100\,000 + 3\,000\,000 + 1000 + 70\,000 + 10 + 3 + 0.008 + 0.1$	<ul style="list-style-type: none"> <li>● 3 171 613.108</li> </ul>

- 3) Partition the numbers below. Write your answer as an addition calculation.

- a) 5 642 110.632  
b) 6 221 877.22  
c) 3 442 492.056  
d) 4 963 664.001

- 1) Look at the arrow cards below.  
Write the number shown.



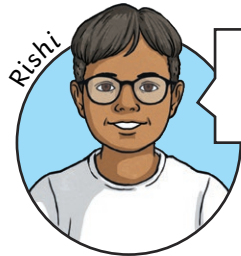
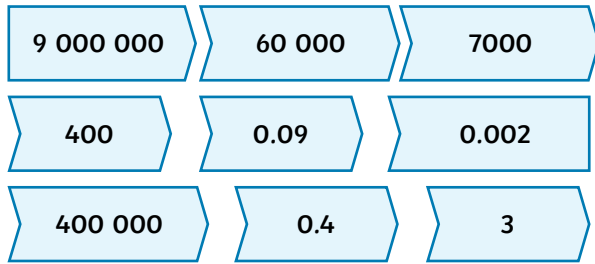
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- 1) Rishi is making numbers with arrow cards.



6 467 413.492 is the number I've made.

Do you agree with Rishi? Explain why.

- 2) Holly has partitioned the numbers below. Tick or cross her answers. Correct any that need to be corrected. Explain why.

Number	Partitioned Number	✓ or ×
1 103 500.74	$500 + 0.4 + 3000 + 1\ 000\ 000 + 0.07 + 100\ 000$	
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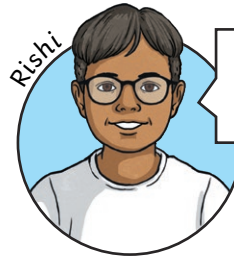
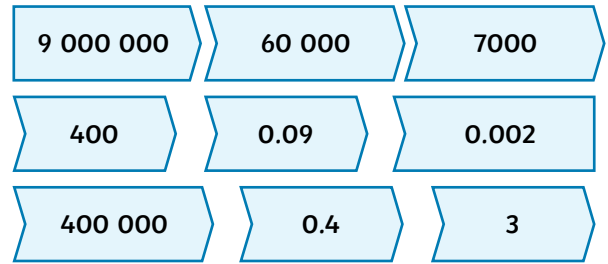
- 3) Mo is thinking about the number 3 413 903.902.



Showing this number with standard partitioning will produce 8 parts

Do you agree with Mo? Prove it.

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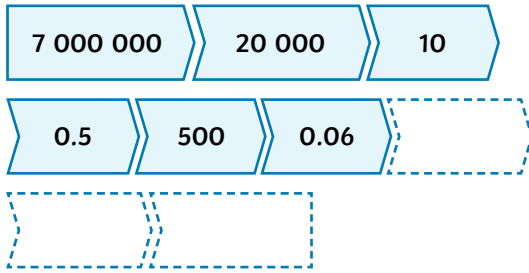
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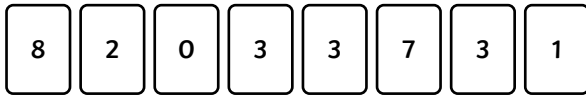
Do you agree with Mo? Prove it.

- 1) Phoebe has made a decimal number with arrow cards. She has made a number between 7 124 510 and 7 124 513.



All the possible answers will have the same 7 digits.

- a) Do you agree with Phoebe? Explain your answer.
- b) How many possible answers are there? Find them all.
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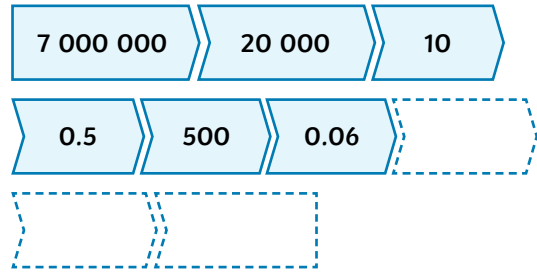
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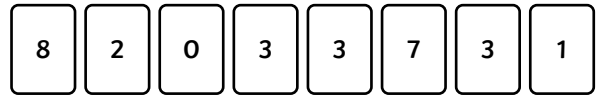
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# Place Value Number Guess

To partition and compose numbers up to 10 000 000 including decimal tenths, hundredths and thousandths.



Can you guess your partner's decimal number? Show each guess using partitioning.

Turn	Guess	Partitioned Number	Feedback								
			Hth	Tth	Th	H	T	O	t	h	th
1											
2											
3											
4											
5											
6											
7											
8											
9											
10											

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Turn	Guess	Partitioned Number	Feedback										
			M	Hth	Tth	Th	H	T	O	t	h	th	
1													
2													
3													
4													
5													
6													
7													
8													
9													
10													

# Place Value Number Guess

To partition and compose numbers up to 10 000 000 including decimal tenths, hundredths and thousandths.



Can you guess your partner's decimal number? Show each guess using partitioning.

Turn	Guess	Partitioned Number	Feedback Example: The digit in the millions place was correct.
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			