



1) a) Place Value Grid

Ones	tenths	hundredths	Decimal
	● ● ● ● ● ● ●	● ● ●	0.53

There are **0** ones.

There are **5** tenths.

There are **3** hundredths.

0.53 is the decimal shown.

b) Place Value Grid

Ones	tenths	hundredths	Decimal
● ●		●	2.01

There are **2** ones.

There are **0** tenths.

There are **1** hundredths.

2.01 is the decimal shown.

c) Place Value Grid

Ones	tenths	hundredths
● ● ●	● ● ● ● ● ● ● ●	

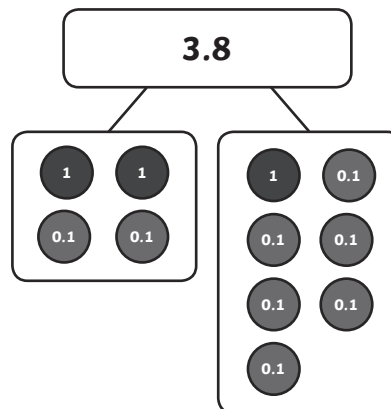
There are **3** ones.

There are **8** tenths.

There are **0** hundredths.

3.8 is the decimal shown.

Decimal
3.8 or 3.80



2) Add seven counters to the tenths column, cross out one counter in the tenths column and add one counter to the hundredths column.

Ones	tenths	hundredths
● ● ● ● ● ● ●	● ●	● ● ● ● ● ●



- 1) Zoe's number represents one whole and four-hundredths and Vinnie's number represents one whole and four-tenths. This means that Vinnie is correct because the place value grid also shows one whole and four-tenths.
- 2) C is the odd one out because it represents 23.5 which is the same as 2350 hundredths unlike A, B and C which all represent 2.35 which is the same as 235 hundredths.
- 3) False. The place value grid shows four ones, two-tenths and one-hundredth which makes 4.21. The part-whole model shows one part with 2.01 and the other part with 2.2 so both parts added together also make 4.21. Therefore, both models are the same.

- 1) a) 1.22
b) 0.32, 0.23, 2.12, 1.13, 2.21, 1.31
- 2) Children's answers will vary, for example: 5.05, 4.15, 4.06, 3.25, 3.16, 3.07.



3)

Ones	tenths	hundredths
●	● ● ● ● ● ●	

1.5

Ones	tenths	hundredths
● ●	● ● ● ●	

2.4

Ones	tenths	hundredths
● ●	● ● ●	●

2.31



1) For each question, make sure the place value grid, decimal box and sentence stems all show the same decimal number.

a)

Ones	•	tenths	hundredths
	•	● ● ● ● ● ●	● ● ●

Decimal

There are ____ ones.
 There are ____ tenths.
 There are ____ hundredths.
 _____ is the decimal shown.

b)

Ones	•	tenths	hundredths
	•		

Decimal
2.01

There are ____ ones.
 There are ____ tenths.
 There are ____ hundredths.
 _____ is the decimal shown.

c) For this question, use the part-whole model to fill in the place value grid, decimal box and sentence stems.

Ones	•	tenths	hundredths
	•		

1	1
0.1	0.1

1	0.1
0.1	0.1
0.1	0.1
0.1	

Decimal

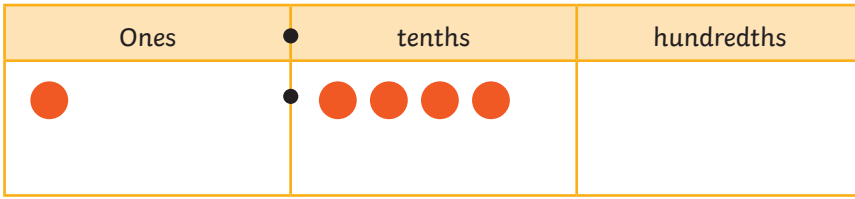
There are ____ ones.
 There are ____ tenths.
 There are ____ hundredths.
 _____ is the decimal shown.

2) Add or remove counters from the place value grid so 9.06 is represented.

Ones	•	tenths	hundredths
● ●	•	●	● ● ● ● ● ●



1) Who is right? Who is wrong? Explain why.



1.04 is the number represented.

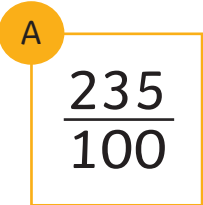
Zoe



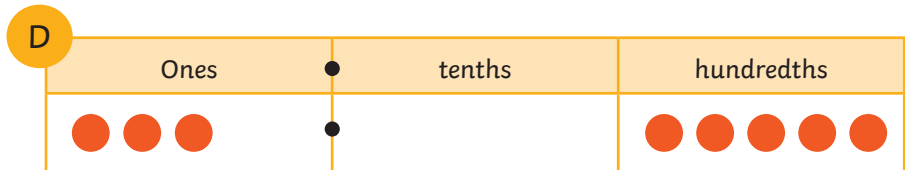
1.4 is the number represented.

Vinnie

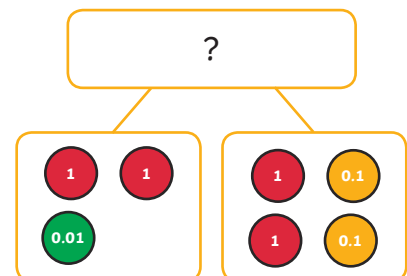
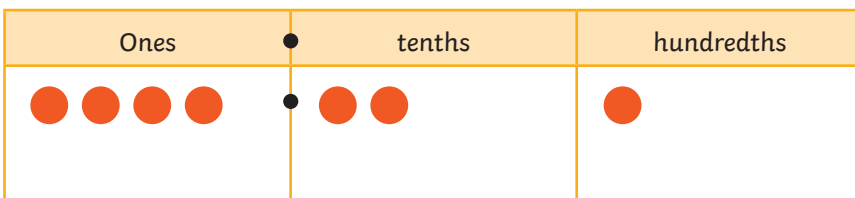
2) Which one is the odd one out? Explain why.



B Two hundred and thirty-five hundredths



3) True or false? The number represented on the place value grid is greater than the number represented in the part-whole model.





1) Silas has been using 5 counters on his place value grid to make a number.

Ones	tenths	hundredths
●	● ●	● ●

- a) What number has he made? _____
- b) If Silas moved 1 of his counters around into different columns on the place value grid, what new numbers could he make? Draw and use place value grids to help you find as many possibilities as you can.

2) Look at Pippa's place value chart.

She was making a decimal number using 10 counters but 2 have fallen off. Where could the two counters have gone? You cannot move the counters already on the place value grid. Find six possibilities. You may need additional paper for your working out.

Ones	tenths	hundredths
● ● ●		● ● ● ● ● ●

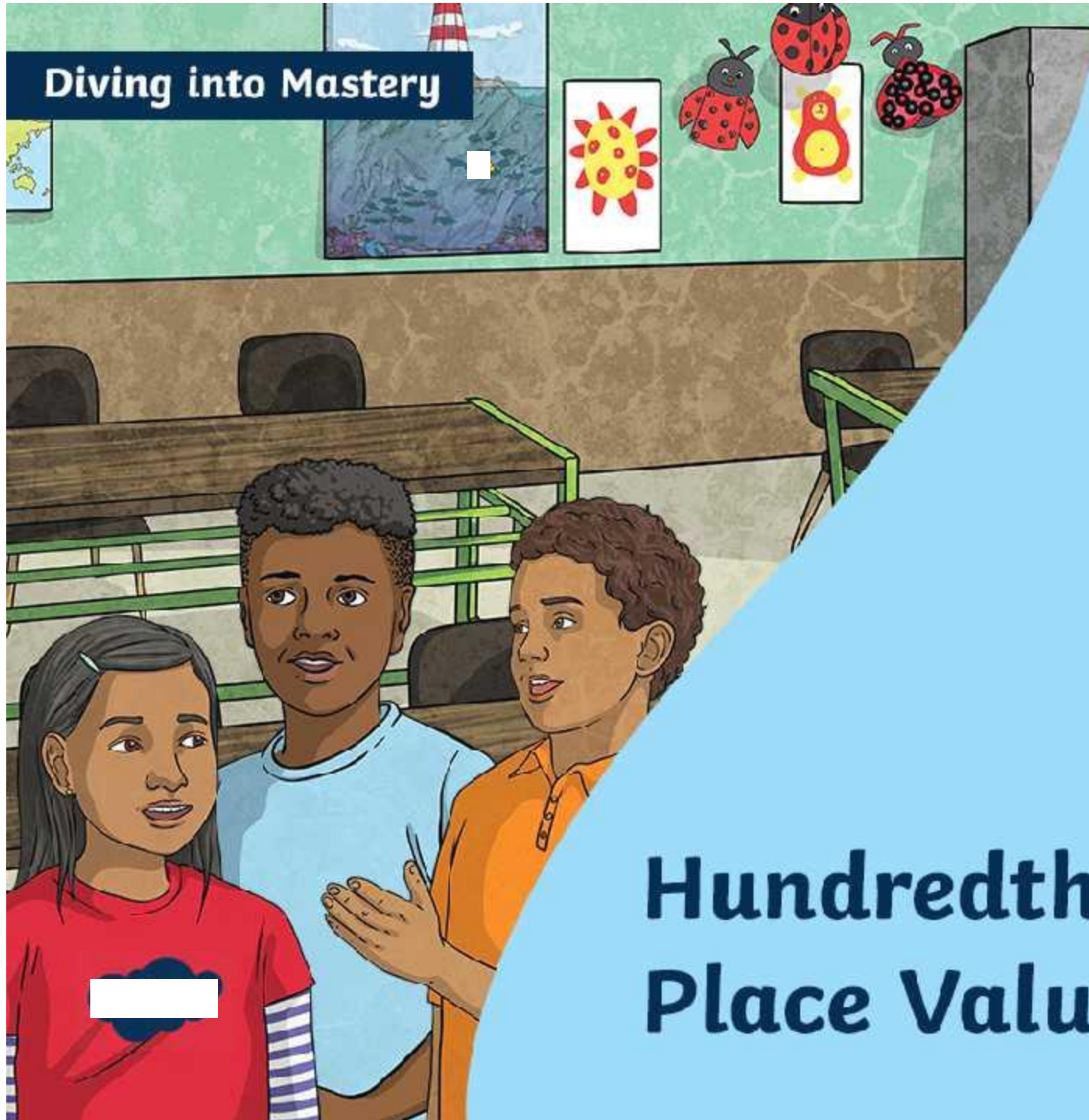
3) Draw 6 counters on to a place value chart to match this description. Find all possible answers. You may need additional paper for your working out.



The hundredths are less than the tenths.
The ones are less than the tenths but greater than the hundredths.

Ones	tenths	hundredths

Diving into Mastery



Hundredths on a Place Value Grid

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:



Diving



Deeper



Deepest

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 order as 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.



Aim

- Recognise and write decimal equivalents of any number of tenths or hundredths.

Hundredths on a Place Value Grid

Diving



Complete the table.

Place Value Grid

Ones	•	tenths	hundredths	Decimal
	•			1.63

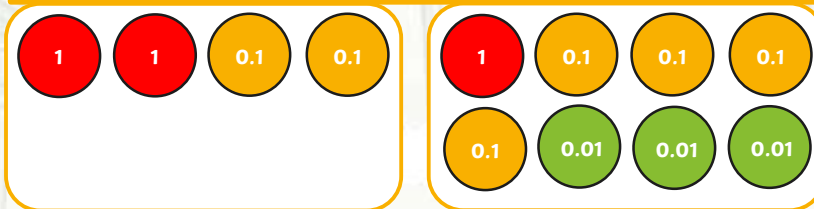
There are 1 ones.

There are 6 tenths.

There are 3 hundredths.

The decimal shown is 1.63.

How would you represent 1.63 using a part-whole model?



Many possible options.

Hundredths on a Place Value Grid

Diving



Add and remove counters so that it represents the number 5.03.

Ones	tenths	hundredths
		

Add two more counters to the ones column so that it represents 5 ones.
Remove one counter from the tenths column so it represents zero tenths.
The hundredths column stays the same.
Now the number represented in the place value grid is 5.03.

Hundredths on a Place Value Grid

Deeper



Who is right? Who is wrong? Explain why.

Ones	tenths	hundredths
● ● ●	● ● ● ●	● ●

3.42 is the number represented.

Emilla

3.24 is the number represented.

Hussain

Emilla is correct. The number represented in the place value chart is 3.42 which matches her decimal number. Hussain has made a mistake - he has muddled the tenths digit with the hundredths digit.



Which is the odd one out and why?

A

$$\frac{405}{100}$$

B

4 ones and 5 hundredths

C

4.05

D

Ones				•	tenths				hundredths
●	●	●	●	•	●	●	●	●	
					●				

A, B and C represent 4.05 and D represents 4.5 so D is the odd one out.

Hundredths on a Place Value Grid

Deeper



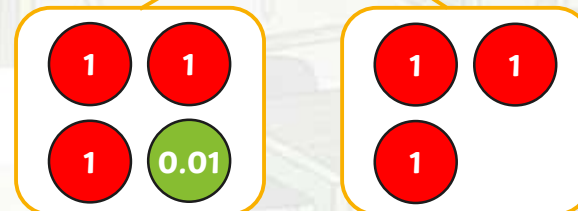
True or false?

The number represented on the place value grid is less than the number represented in the part-whole model.

Ones	tenths	hundredths
	● ● ● ● ● ●	●

0.61

6.01



$$3.01 + 3 = 6.01$$

6.01 is shown on the part-whole model.
0.61 is shown on the place value grid.
0.61 is less than 6.01 so the answer is true.

Hundredths on a Place Value Grid

Deepest



Edmond has been using 3 counters on his place value grid to make a number.

What number has he made? 1.11

If Edmond moved 1 of his counters around into different places on the place value grid, what new numbers could he make?
Draw and use place value grids to help you find all possibilities.

Ones	tenths	hundredths



0.21

0.12

2.01

1.02

1.2

2.1

Hundredths on a Place Value Grid

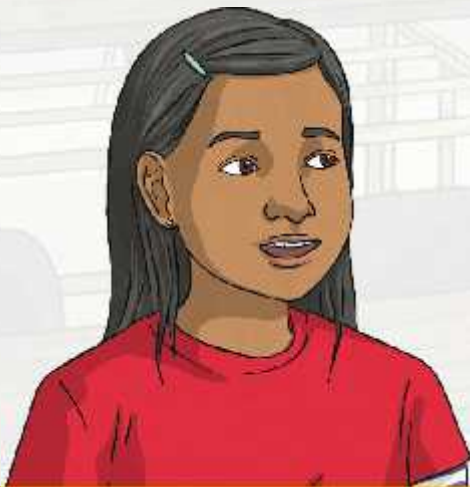
Deepest



Look at Katie's place value chart.

She was making a decimal number using 6 counters but 2 have fallen off.

Where could the two counters have gone? You cannot move the counters already on the place value grid. Find as many different answers as you can.



Ones	•	tenths	hundredths
●	•	● ●	●

3.21

2.22

2.31

1.41

1.32

1.23

Hundredths on a Place Value Grid

Deepest



Draw 5 counters on to a place value chart to match this description.
Find 3 possible answers.

Ones	tenths	hundredths

The tenths are an even number but my ones are greater than my hundredths.



5

4.01

3.02

3.2

2.21

1.4



1) For each question, make sure the place value grid, decimal box and sentence stems all show the same decimal number.



a)

Ones	tenths	hundredths
	● ● ● ● ● ● ●	● ● ●

Decimal

There are ____ ones.
There are ____ tenths.
There are ____ hundredths.
_____ is the decimal shown.

b)

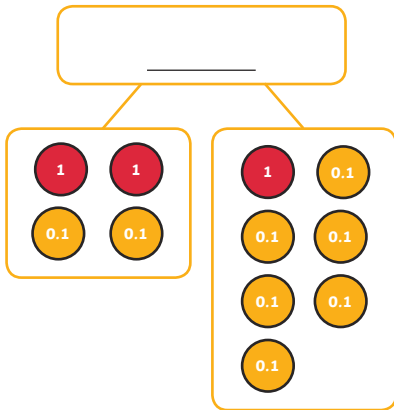
Ones	tenths	hundredths
	●	

Decimal
2.01

There are ____ ones.
There are ____ tenths.
There are ____ hundredths.
_____ is the decimal shown.

c) For this question, use the part-whole model to fill in the place value grid, decimal box and sentence stems.

Ones	tenths	hundredths



Decimal

There are ____ ones.
There are ____ tenths.
There are ____ hundredths.
_____ is the decimal shown.

2) Add or remove counters from the place value grid so

Ones	tenths	hundredths
● ●	●	● ● ● ● ●

1) For each question, make sure the place value grid, decimal box and sentence stems all show the same decimal number.



a)

Ones	tenths	hundredths
	● ● ● ● ● ● ●	● ● ●

Decimal

There are ____ ones.
There are ____ tenths.
There are ____ hundredths.
_____ is the decimal shown.

b)

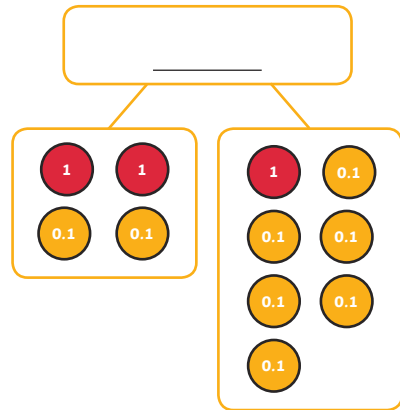
Ones	tenths	hundredths
	●	

Decimal
2.01

There are ____ ones.
There are ____ tenths.
There are ____ hundredths.
_____ is the decimal shown.

c) For this question, use the part-whole model to fill in the place value grid, decimal box and sentence stems.

Ones	tenths	hundredths



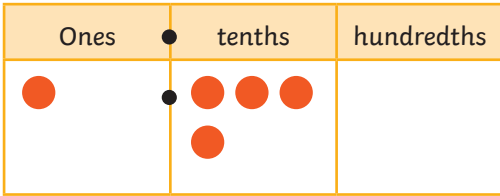
Decimal

There are ____ ones.
There are ____ tenths.
There are ____ hundredths.
_____ is the decimal shown.

2) Add or remove counters from the place value grid so

Ones	tenths	hundredths
● ●	●	● ● ● ● ●

- 1) Who is right? Who is wrong? Explain why.



1.04 is the number represented.

Zoe

1.4 is the number represented.



Vinnie

- 2) Which one is the odd one out? Explain why.

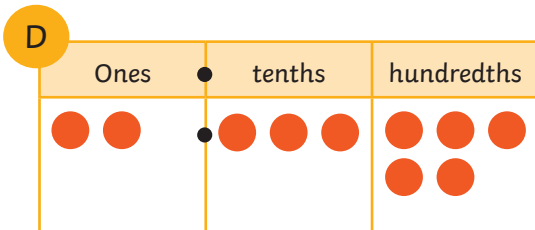
A

$$\frac{235}{100}$$

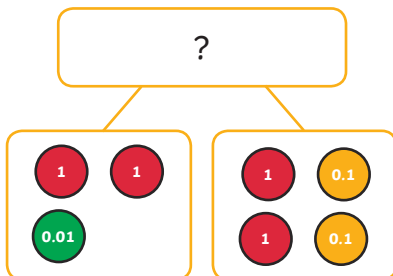
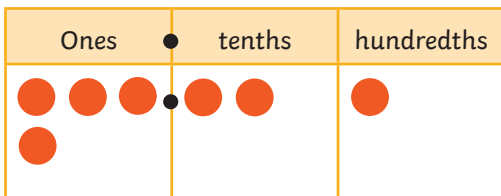
B Two hundred and thirty-five hundredths

C

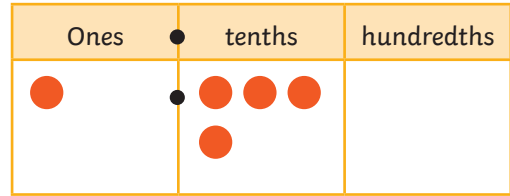
$$23.5$$



- 3) True or false? The number represented on the place value grid is greater than the number represented in the part-whole model.



- 1) Who is right? Who is wrong? Explain why.



1.04 is the number represented.

Zoe

1.4 is the number represented.



Vinnie

- 2) Which one is the odd one out? Explain why.

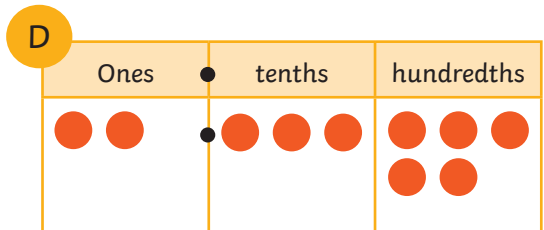
A

$$\frac{235}{100}$$

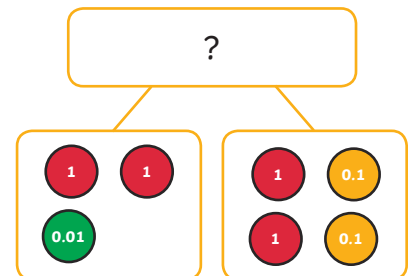
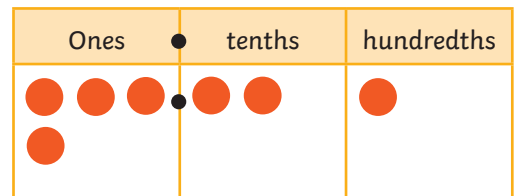
B Two hundred and thirty-five hundredths

C

$$23.5$$



- 3) True or false? The number represented on the place value grid is greater than the number represented in the part-whole model.



- 1) Silas has been using 5 counters on his place value grid to make a number.



Ones	tenths	hundredths
●	● ● ●	● ●

- a) What number has he made?
 b) If Silas moved 1 of his counters around into different columns on the place value grid, what new numbers could he make? Draw and use place value grids to help you find as many possibilities as you can.

- 2) Look at Pippa's place value chart. She was making a decimal number using 10 counters but 2 have fallen off. Where could the two counters have gone? You cannot move the counters already on the place value grid. Find six possibilities.

Ones	tenths	hundredths
● ● ● ● ●	●	● ● ● ● ● ●

- 3) Draw 6 counters on to a place value chart to match this description. Find all possible answers.

The hundredths are less than the tenths.
 The ones are less than the tenths but greater than the hundredths.



- 1) Silas has been using 5 counters on his place value grid to make a number.



Ones	tenths	hundredths
●	● ● ●	● ●

- a) What number has he made?
 b) If Silas moved 1 of his counters around into different columns on the place value grid, what new numbers could he make? Draw and use place value grids to help you find as many possibilities as you can.

- 2) Look at Pippa's place value chart. She was making a decimal number using 10 counters but 2 have fallen off. Where could the two counters have gone? You cannot move the counters already on the place value grid. Find six possibilities.

Ones	tenths	hundredths
● ● ● ● ●	●	● ● ● ● ● ●

- 3) Draw 6 counters on to a place value chart to match this description. Find all possible answers.

The hundredths are less than the tenths.
 The ones are less than the tenths but greater than the hundredths.

