



1) Put the following numbers in ascending order.

- a) 54.1, 55.7, 56.21, 56.3, 56.32
- b) 7.1, 7.3, 7.34, 7.43
- c) 4.09, 4.094, 4.4, 4.49, 4.9
- d) 5.22, 5.23, 5.32, 5.55

2) a) Multiple answers possible. The answer given below shows the greatest and smallest numbers to the thousandths; accept any numbers within this range.

$1246.026 - 1246.029$

b)

Th	H	T	O	●	$\frac{1}{10}$	$\frac{1}{100}$	$\frac{1}{1000}$
○ ○	○ ○ ○ ○ ○ ○	○	○ ○ ○ ○	●	○ ○ ○ ○ ○ ○		○ ○ ○ ○ ○ ○ ○ ○ ○ ○

1) Alice has used the number of digits in the numbers to help her order them. If she looked at the place value of the numbers, she would see that although 0.9 only has two digits, it has 9 tenths which is more than the 6 tenths in 0.651. The correct order should be: 0.956, 0.9, 0.75, 0.651 and 0.145.



2) Ruby has made some mistakes in both columns. She has put 4.7642 in the greater than column when, in fact, this number is smaller than 13.65 even though it has more decimal places. She has also put 13.065 in the wrong column too - this number is less than 13.65. Ruby should also have put 13.973 in the greater than column as this number is greater than 13.65.

3) Sally - C

Tunde - A

Bradley - B

1) Aless is incorrect. 4.4 is a possible answer but it is not the only answer. For example, 4.39 would also work.



Rory is incorrect. 4.1731 is smaller than 4.5 and so could not be the next card as the cards have been put in ascending order.

Callum is correct.

2) Accept any chain of digits that make the comparison statement correct.

For example, $15.010 < 15.159 < 15.909 < 16.007 < 16.201 > 16.001$

Blank Place Value Grid

ten millions	millions	hundred thousands	ten thousands	thousands	hundreds	tens	ones	●	$\frac{1}{10}$	$\frac{1}{100}$	$\frac{1}{1000}$
								●			

ten millions	millions	hundred thousands	ten thousands	thousands	hundreds	tens	ones	●	$\frac{1}{10}$	$\frac{1}{100}$	$\frac{1}{1000}$
								●			

ten millions	millions	hundred thousands	ten thousands	thousands	hundreds	tens	ones	●	$\frac{1}{10}$	$\frac{1}{100}$	$\frac{1}{1000}$
								●			

ten millions	millions	hundred thousands	ten thousands	thousands	hundreds	tens	ones	●	$\frac{1}{10}$	$\frac{1}{100}$	$\frac{1}{1000}$
								●			

Number Line Squeeze Extra Challenge

To order and compare numbers up to 10 000 000.



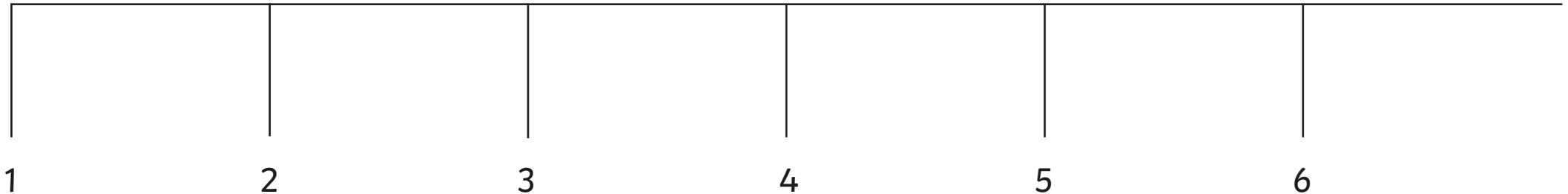
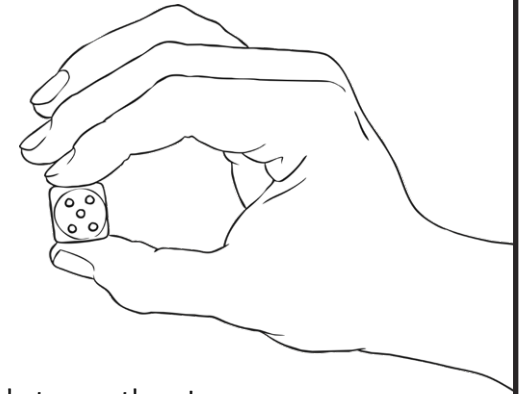
Work with a partner to play this game. You will need one dice between two.

Take it in turns to roll a decimal number with one or two decimal places. Make your number by rolling the dice three times. You can use the three numbers you roll to make a number with two decimal places, or you can choose to add or subtract two of your numbers, and use this answer with your third number to make a number with just one decimal place.

For example, if you roll a 5, a 6 and a 2, you could make 2.65. Or you could choose to subtract the two from the 6, making 4. This then gives you a 5 and a 4, so you could make 4.5.

Write it in colour in the correct place on the number line. Your partner will then do the same, using a different colour.

The aim of the game is to get three numbers in order on the number line without your partner squeezing a number in between them!



0.4

0.04

9

6.7

6.29

0.9

13

103

3001

30 001

3 500 000

350 000

4585

4855

89 450

98 450

8 760 680

8 670 860

110.1

111.01

587 441

49 500

12 910

0.5

21

98

471

340

430

2 348 491

3 284 582

7 648 139



1) Put the following numbers in ascending order.

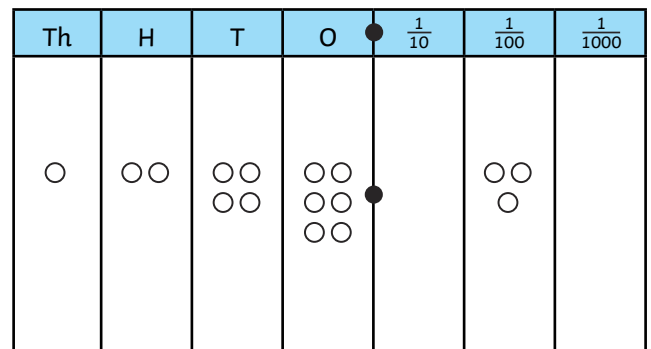
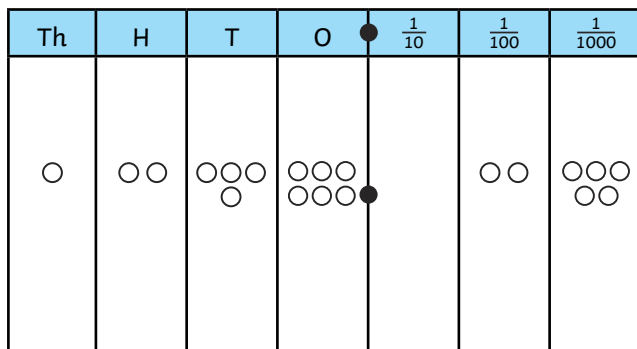
a) 56.32, 54.1, 56.3, 56.21, 55.7

b) 7.43, 7.34, 7.3, 7.1

c) 4.09, 4.9, 4.094, 4.4, 4.49

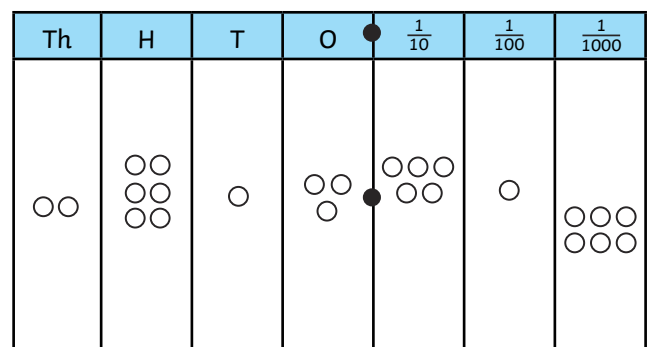
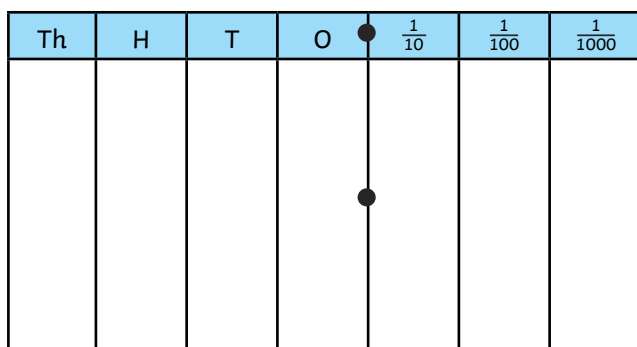
d) 5.22, 5.32, 5.23, 5.55

2) a) Write a number that is larger than the value on the left but less than the value on the right to complete the comparison statement.



< <

b) Represent the **greatest** possible number in the place value grid that completes this comparison statement.



< <



1) Alice has a set of number cards and decides to order them from greatest to smallest.

Are the number cards ordered correctly?

What mistakes has Alice made with her place value?

0.956	0.651	0.145	0.75	0.9
-------	-------	-------	------	-----


2) Aaron has chosen the number 13.65 and his friend, Ruby, has completed the table below about this number.

> 13.65	< 13.65
4.7642	6.65
14.6	13.56
200.13	13.093
13.065	13.973

Do you agree with Ruby's answers? Explain any mistakes she has made.


3) Match the child to the calculation that satisfies their clue.

My number has 3 tenths.




Sally

My number has 4 ones, 0 tens and 0 tenths.



Tunde

My number has 0 tenths and no ones.



Bradley

A	$4.7 > \text{_____} > 4.07$
B	$0.01 < \text{_____} < 0.1$
C	$3.3 < \text{_____} < 3.35$
D	$4.5 > \text{_____} > 4.441$



1) Read the statements about the cards in ascending order below

4.3		4.5		
-----	--	-----	--	--



Alessi

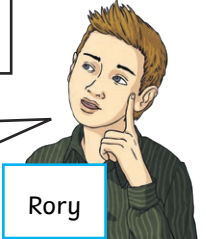
The second card could only be 4.4.



Callum

4.5 will be the middle card if the cards are in ascending or descending order.

The next card after 4.5 could be 4.1731



Rory

Do you agree with the children's statements? Explain your answers.

2) Some of the digits are missing from this comparison statement. Can you find different ways to make the statements mathematically correct?

$$15.2 \square 0 < 15.\square 59 < 15.90 \square < 16.00 \square < 16.201 > 16.\square 01$$

Number Line Squeeze

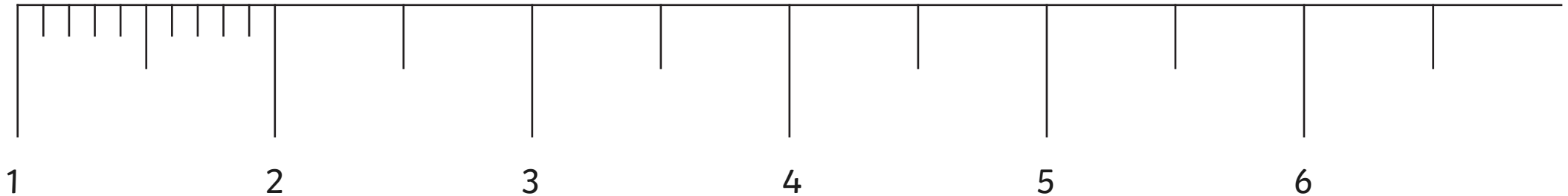
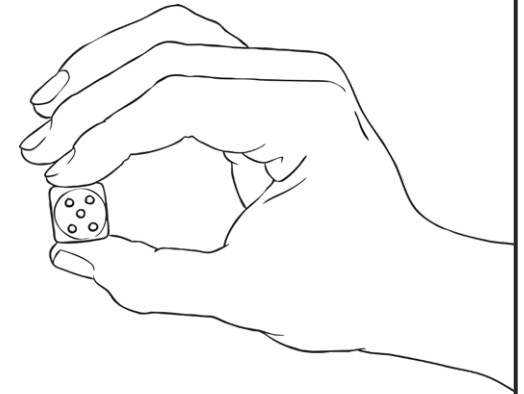
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Work with a partner to play this game. You will need one dice between two.

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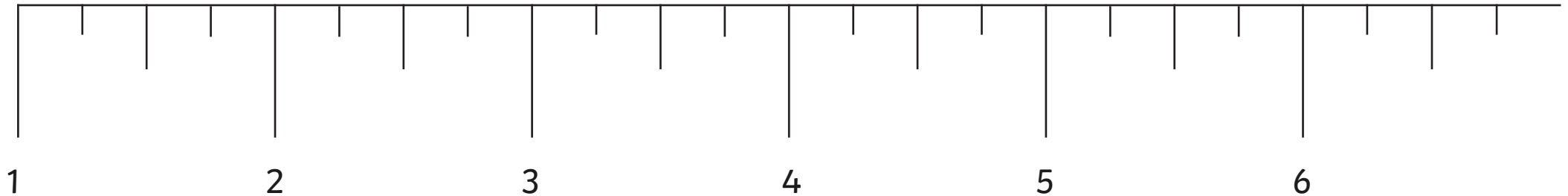
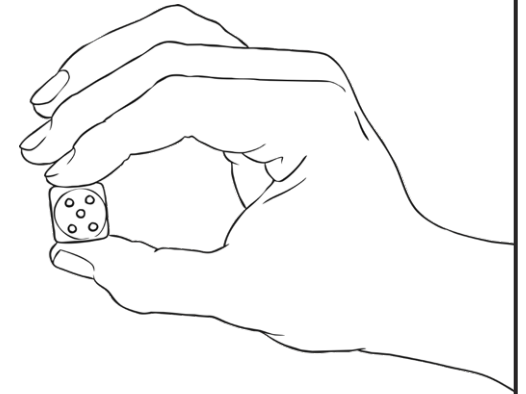
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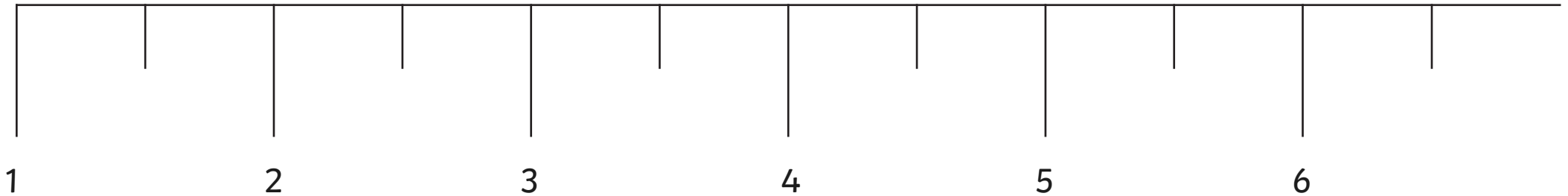
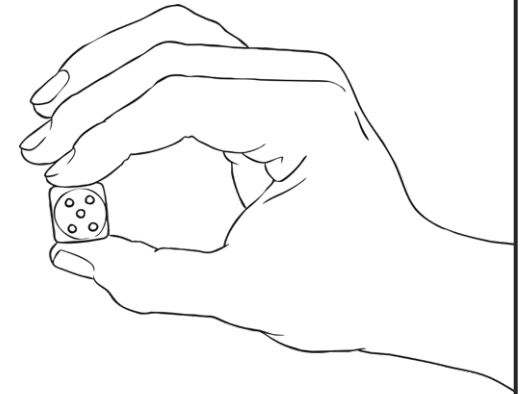
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2) a) Write a number that is larger than the top value and less than the bottom value to complete the comparison statement.

Th	H	T	O	$\frac{1}{10}$	$\frac{1}{100}$	$\frac{1}{1000}$
○	○ ○	○ ○	○ ○ ○ ○	●	○ ○	○ ○ ○

< <

Th	H	T	O	$\frac{1}{10}$	$\frac{1}{100}$	$\frac{1}{1000}$
○	○ ○	○ ○	○ ○ ○ ○	●	○ ○	

Represent the **greatest** possible number in the place value grid that completes this comparison statement.

Th	H	T	O	$\frac{1}{10}$	$\frac{1}{100}$	$\frac{1}{1000}$
				●		

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Th	H	T	O	$\frac{1}{10}$	$\frac{1}{100}$	$\frac{1}{1000}$
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< <

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○ ○	○ ○ ○ ○	○	○ ○ ○	○ ○ ○ ○	○	○ ○ ○ ○

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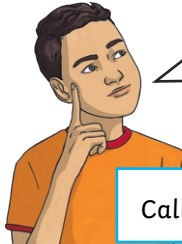


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