

# Aim

- To order and compare numbers up to three decimal places.

# Success Criteria

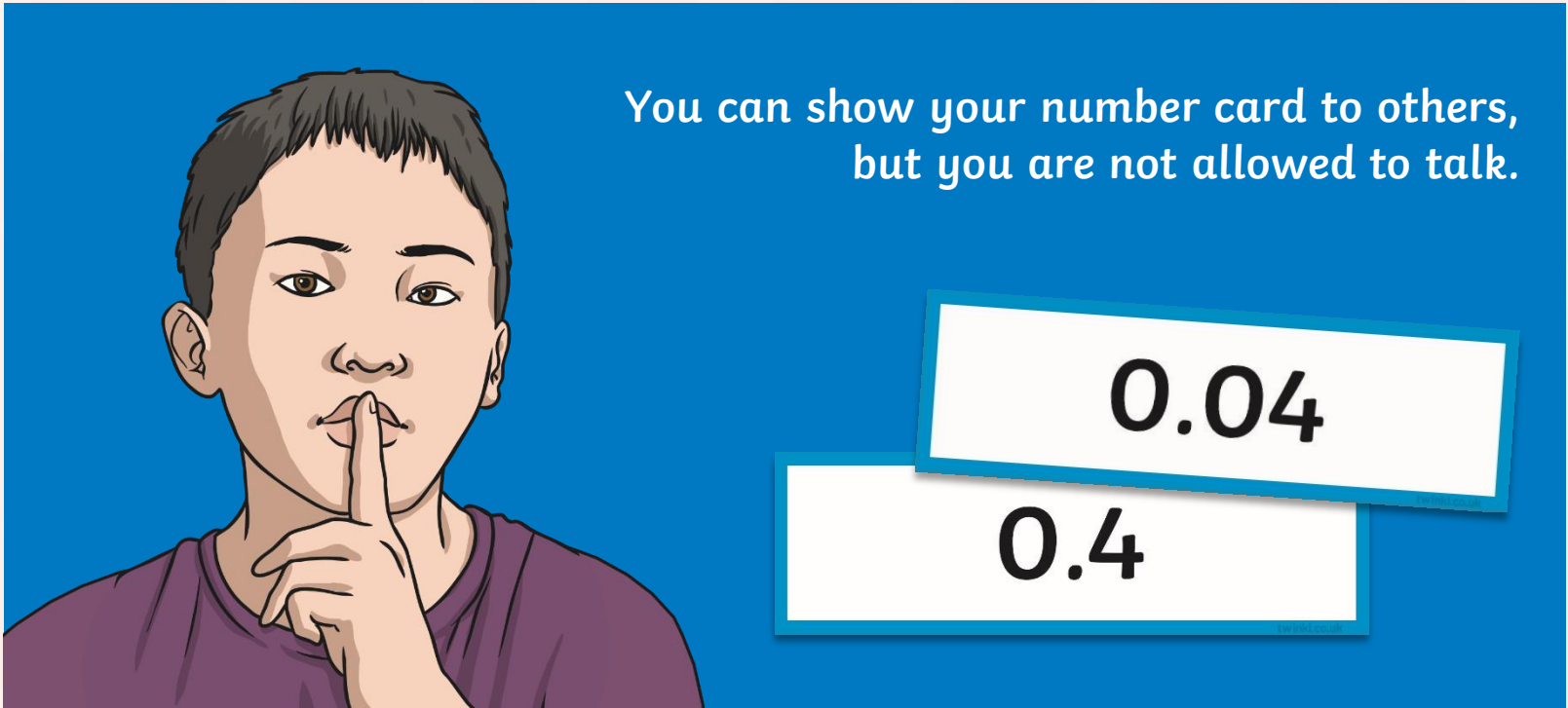
- I can identify the value of each digit in decimal numbers.
- I can compare decimal numbers.
- I can order decimal numbers.

# Get in Line



Each person has a number card.

Your whole class challenge is to stand in a line so that all your numbers are in order from smallest to biggest!



You can show your number card to others,  
but you are not allowed to talk.

# Comparing Decimals



When comparing decimal numbers, it is important to make sure you understand the place value of each digit.

Eric has two number cards. He compares the numbers.

3.27 is larger because 27 is larger than 4.

3.27

3.4

Do you agree with Eric?



# Comparing Decimals



3.27 is larger because 27 is larger than 4.

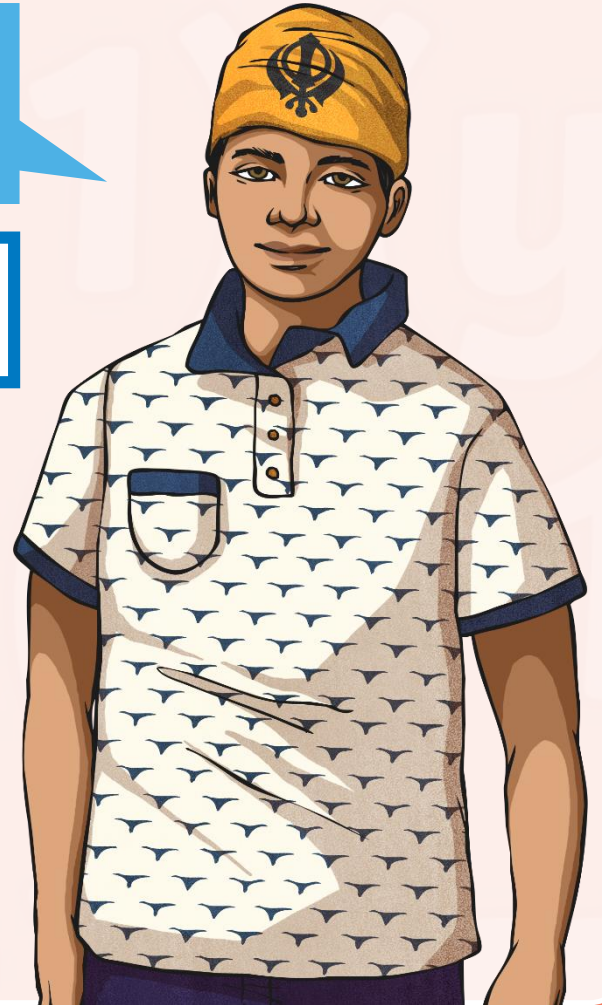
3.27

3.4

3.27 is actually smaller than 3.4!

Can you explain to Eric why it is smaller?

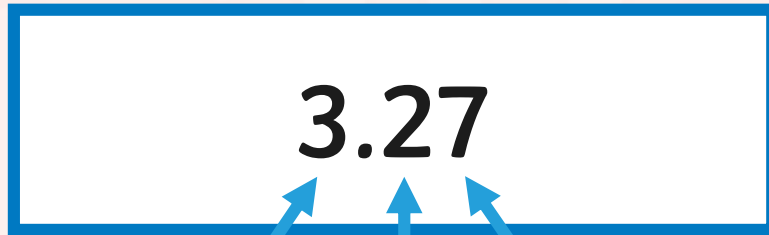
Think about what each digit represents in the two numbers.



# Comparing Decimals



We can partition the numbers to help us explain our ideas.



three  
ones

two  
tenths

seven  
hundredths



three  
ones

four  
tenths

Both numbers have three ones. However, 3.27 has just two tenths, while 3.4 has four tenths. 3.4 is the bigger number.

# Comparing Decimals



Find the bigger number in each of these pairs. Explain how you know.

16.09

16.3

2.5

2.19

23.49

23.095

98.34

98.321

# Comparing Decimals



Find the bigger number in each of these pairs. Explain how you know.

16.09

16.3

16.3 is larger because it has three tenths, while 16.09 has zero tenths.

2.5

2.19

2.5 is larger than 2.19 because 2.19 only has one tenth, while there are five tenths in 2.5.

23.49

23.095

23.49 is larger as it has four tenths and there are zero tenths in 23.095.

98.34

98.321

98.34 is larger because it has four hundredths, rather than just two hundredths in 98.321.

# Ordering Decimals



When ordering decimal numbers, we use the same technique of comparing the place value of the digits in each number.

0.4

4.4

0.04

4.04

0.44

Razia puts these decimal numbers in order from smallest to largest. Do you agree with how she has ordered them? Explain why or why not.

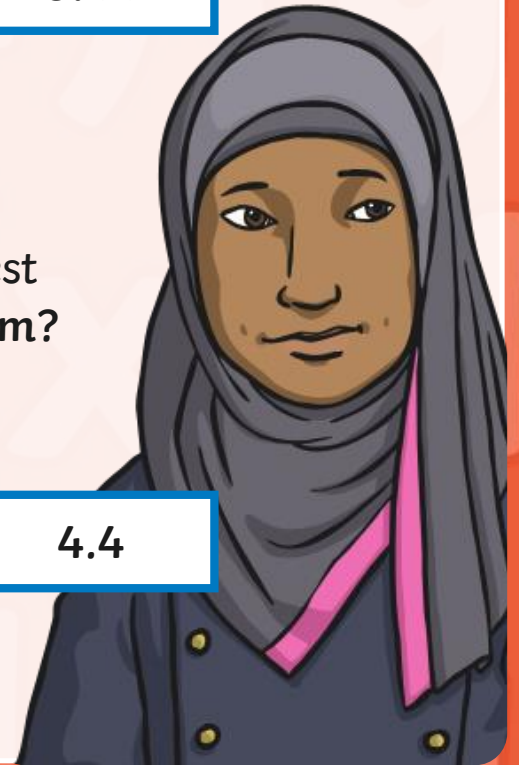
0.04

0.4

0.44

4.04

4.4





# Ordering Decimals



0.04

0.4

0.44

4.04

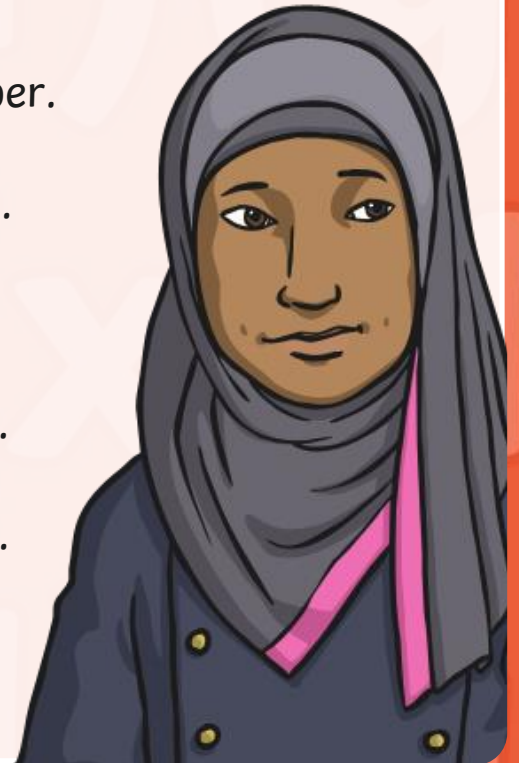
4.4

smallest

largest

Razia has ordered these decimal numbers correctly. She has compared the value of each digit in each number.

- 0.04 has zero ones, zero tenths and four hundredths.
- 0.4 has zero ones and four tenths.
- 0.44 has zero ones, four tenths and four hundredths.
- 4.04 has four ones, zero tenths and four hundredths.
- 4.4 has four ones and four tenths.



# Ordering Decimals



Choose one set of these decimal numbers and put them in order from smallest to biggest.

2.3

0.3

3.2

0.2

0.03

7.25

7.21

7.125

7.025

7.1

7.15

45.045

45.405

45.545

45.54

45.005

45.445

# Ordering Decimals



How did you do?

0.03

0.2

0.3

2.3

3.2

7.025

7.1

7.125

7.15

7.21

7.25

45.005

45.045

45.405

45.445

45.54

45.545

# Number Line Squeeze

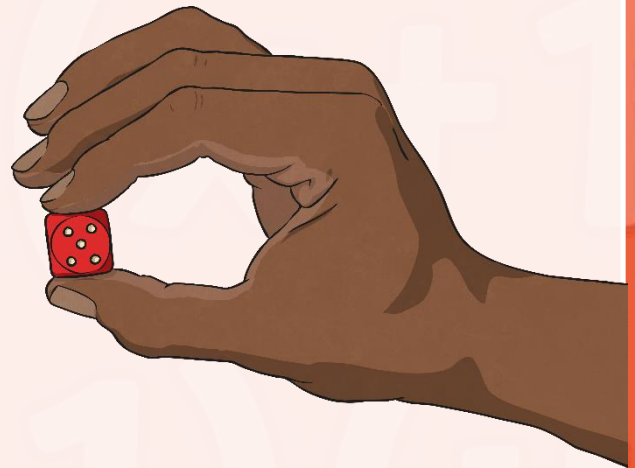


Play 'Number Line Squeeze' to order and compare decimal numbers.

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

The game is played on a labelled number line. You will take it in turns to roll a decimal number and write it in the correct place on the number line. Your partner will then do the same - roll a number and write it on the number line.

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! Let's look at an example now.



# Number Line Squeeze



These two children are working together.

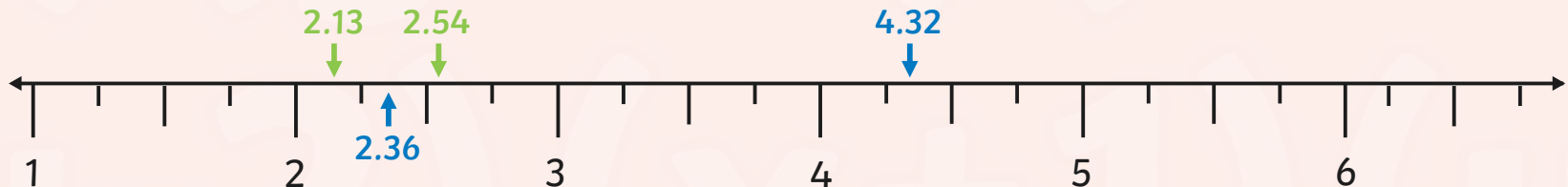


Elisa rolls first. She rolls three times and gets a 3, a 1 and a 2. She decides to make 2.13. She writes it on the number line in green.

Max now rolls the dice. He rolls a 4, a 3 and a 2. He makes 4.32 and writes it on the number line in blue.

Elisa rolls a 2, a 5 and a 4. She makes 2.54 and writes it on the number line. She now has two numbers in order on the number line! She only needs one more to win.

Max rolls a 3, a 2 and a 6. He makes 2.36. He can squeeze this in between Elisa's numbers on the number line.



# Number Line Squeeze



Max and Elisa keep playing until one person gets three numbers in order without any of their partner's numbers squeezed in between them.

Now it's over to you!

**Number Line Squeeze**

To order and compare numbers up to three decimal places.

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 two decimal places. 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!

Mathematics | Year 5 | Number and Algebra | Fractions and Decimals | Number Comparisons | Number Squeeze | Lesson 1 of 1

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# Make It True



Choose two digits and a symbol from the cards below to make this number sentence true.

$$4.5\_1 \quad \square \quad 4.\_21$$

>

8

<

2

5

=

# Make It True



There are several possibilities you could have chosen!  
Here are two of the possible ways to make it true:

$$4.581 \quad > \quad 4.221 \qquad 4.521 \quad = \quad 4.521$$

>

8

<

2

5

=