

Day 5 Maths – Progression with decimals to 3 places.

The slides get progressively harder. It looks at the work we have done throughout this week.

Slide 2 – fluency

Slide 3 – reasoning

Slide 4 – problem solving

Aim to complete 2 slides (or 45 minutes work)

The focus is on recognising the value of decimals up to 3 places.



FLUENCY 1

Match the value of 5 in each number.

82,365.01

981.456

83.51

699.125

1,563.194

tenths

ones

hundredths

hundreds

thousandths

FLUENCY 2

Complete the sentences.

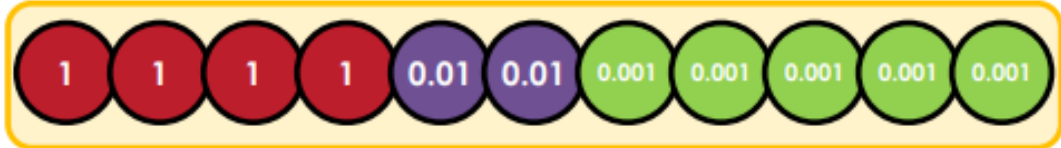
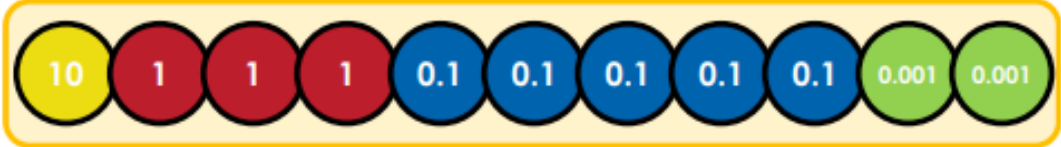
Two tenths is the same as _____ hundredths.

Forty hundredths is the same as _____ tenths.

Six hundredths is the same as _____ thousandths.

FLUENCY 3

Write each number represented in words and digits, then put them in ascending order.



FLUENCY 4

Write Caleb's number using digits.



My number has seventy three tenths, twenty four thousandths and twenty one tens.



REASONING 1

Darcey wrote a number to match the place value counters.

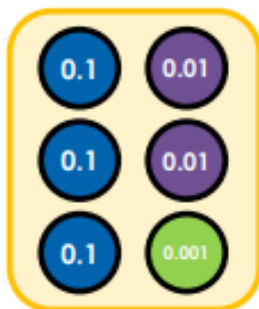


13.42

Describe and correct the error that Darcey has made.

REASONING 2

Which is the odd one out? Convince me.

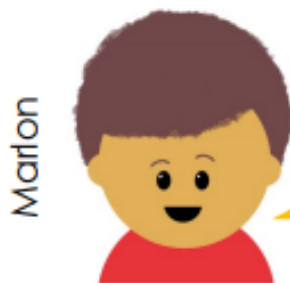


Thirty two tenths and one thousandth

0.321

REASONING 3

Marlon and Jane are discussing the number 5.416.



It has 4 tenths.



It has 54 tenths.

Who do you agree with? Explain your reasoning.

REASONING 4

Anita is comparing decimal numbers.



$3.214 > 3.23$
because 214 is greater than 23.

Describe and correct the error that she has made.



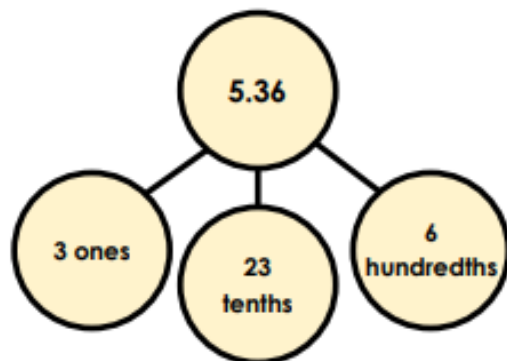
PROBLEM SOLVING 1

Alfie says,



I can partition the number 5.36 by exchanging.

He has created one example using a part-whole model.



Create your own part-whole models for the number 5.36.

How many possibilities can you find?

PROBLEM SOLVING 2

Ranjit, Jerry and Asha each have a number card.



Use the clues to work out what their numbers could be.

All of their numbers are less than ten.

Ranjit's number is the greatest and has 3 decimal places.

Asha and Jerry's numbers have two decimal places.

Jerry has an odd number of tenths and hundredths.

The digit total of each number is 15.

Fluency 1



Fluency 2

Two tenths is the same as twenty hundredths.

Forty hundredths is the same as four tenths.

Six hundredths is the same as sixty thousandths.

Fluency 3

One ten, two ones, three tenths and five hundredths – 12.35

One ten, three ones, five tenths and two thousandths – 13.502

Four ones, two hundredths and five thousandths – 4.025

Ascending order – 4.025, 12.35, 13.502

Fluency 4

217.324

Reasoning 1

Pupil responses should show that Darcey has not written the decimal digits correctly.

Modelled DAB Reasoning Responses

D – Darcey has not written the tenths, hundredths and thousandths correctly.

A – There are 0 tenths, 4 hundredths and 2 thousandths in the number.

B – Darcey needs to include 0 in the tenths column to show that there are no tenths. The correct number to match the place value counters is 13.042.

Reasoning 2

Pupil responses should show that 'thirty two tenths and one thousandth' is the odd one out.

Modelled DAB Reasoning Response

D – 'Thirty two tenths and one thousandth' is the odd one out.

A – It does not match the number in digits or the place value counters.

B – 0.321 matches the place value counters. This number has thirty two hundredths and one thousandth so it does not match the word card.

Reasoning 3

Pupil responses should show that they agree with both Marlon and Jane.

Modelled DAB Reasoning Response

D – I agree with both Marlon and Jane.

A – They have both given the correct number of tenths.

B – The number has 5 ones and 4 tenths which makes Marlon's statement correct, but this can also be expressed as 54 tenths making Jane's statement correct.

Reasoning 4

Pupil responses should show that Anita has not compared the decimal numbers correctly.

Modelled DAB Reasoning Response

D – Anita has not compared the decimal numbers correctly.

A – $3.214 < 3.23$

B – Anita has compared 214 and 23 instead of 0.214 and 0.23. 3.214 has 1 hundredth and 3.23 has 3 hundredths making this a greater number. Thousandths are smaller than hundredths so the extra decimal place does not make the number bigger.

Download our 'DAB' posters to support reasoning in your classroom:

<https://www.deepeningunderstanding.co.uk/product/dab-reasoning-posters/>

Problem Solving 1

There are many possible answers. For example:



Problem Solving 2

There are various possible answers. For example:

Ranjit – 4.344

Jerry – 3.75

Asha – 3.66