Decimals as Fractions (Monday)

2.25 = 2 ones, 2 tenths and 5 hundredths.

Can you write the following numbers in at least three different ways?

23.7	2.37	9.08	0.98

Amir says,

To convert a fraction to a decimal, take the numerator and put it after the decimal point.
E.g. $\frac{21}{100} = 0.21$

Write two examples of converting fractions to decimals to prove this does not always work.

Use the digits 3, 4 and 5 to complete the decimal number.

List all the possible numbers you can make.

Write these decimals as mixed numbers.

Choose three of the numbers and write them in words.

Decimals as Fractions ANSWERS (Monday)

2.25 = 2 ones, 2 tenths and 5 hundredths.

Can you write the following numbers in at least three different ways?

23.7	2.37	9.08	0.98

Possible answer: Children may represent it in words, decimals, fractions, expanded form but also by partitioning the number in different ways.

Amir says,

To convert a fraction to a decimal, take the numerator and put it after the decimal point.
E.g. $\frac{21}{100} = 0.21$

Write two examples of converting fractions to decimals to prove this does not always work.

Possible answers could include $\frac{1}{100}$ is not equal to 0.1

Use the digits 3, 4 and 5 to complete the decimal number.

List all the possible numbers you can make.

30.45, 30.54, 40.35, 40.53, 50.43, 50.34

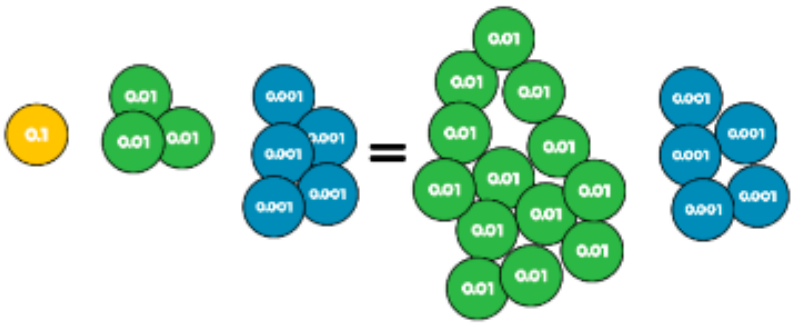
Write these decimals as mixed numbers.

$30\frac{45}{100}$, $30\frac{54}{100}$, $40\frac{35}{100}$, $40\frac{53}{100}$, $50\frac{43}{100}$, $50\frac{34}{100}$

Choose three of the numbers and write them in words.

Understand Thousandths (Tuesday)

Rosie thinks the 2 values are equal.



Do you agree?
Explain your thinking.

Can you write this amount as a decimal and as a fraction?

0.394

= 3 tenths, 9 hundredths and 4 thousandths

$= \frac{3}{10} + \frac{9}{100} + \frac{4}{1000}$

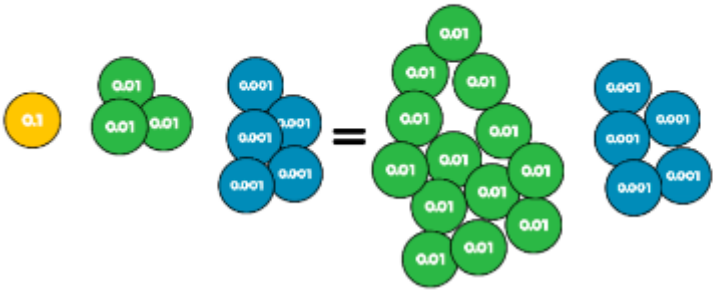
$= 0.3 + 0.09 + 0.004$

Write these numbers in three different ways:

0.472 0.529 0.307

Understand Thousandths ANSWERS (Tuesday)

Rosie thinks the 2 values are equal.



Do you agree?
Explain your thinking.

Agree.

We can exchange ten hundredth counters for one tenth counter.

$0.135 = \frac{135}{1000}$

Can you write this amount as a decimal and as a fraction?

0.394

= 3 tenths, 9 hundredths and 4 thousandths

$= \frac{3}{10} + \frac{9}{100} + \frac{4}{1000}$

$= 0.3 + 0.09 + 0.004$

Write these numbers in three different ways:

0.472 0.529 0.307

0.472 = 4 tenths, seven hundredths and 2 thousandths
$= \frac{4}{10} + \frac{7}{100} + \frac{2}{1000}$
$= 0.4 + 0.07 + 0.002$

0.529 = 5 tenths, two hundredths and 9 thousandths
$= \frac{5}{10} + \frac{2}{100} + \frac{9}{1000} = 0.5 + 0.02 + 0.009$

0.307 = 3 tenths and 7 thousandths
$= \frac{3}{10} + \frac{7}{1000} =$
$0.3 + 0.007$

Rounding Decimals (Wednesday)

Dexter is measuring a box of chocolates with a ruler that measures in centimetres and millimetres.

He measures it to the nearest cm and writes the answer 28 cm.
What is the smallest length the box of chocolates could be?

Whitney is thinking of a number.

Rounded to the nearest whole her number is 4
Rounded to the nearest tenth her number is 3.8
Write down at least 4 different numbers that she could be thinking of.

A number between 11 and 20 with 2 decimal places rounds to the same number when rounded to one decimal place and when rounded to the nearest whole number?

What could this be?
Is there more than one option?
Explain why.

Rounding Decimals ANSWERS (Wednesday)

Dexter is measuring a box of chocolates with a ruler that measures in centimetres and millimetres.

He measures it to the nearest cm and writes the answer 28 cm.
What is the smallest length the box of chocolates could be?

Smallest: 27.5 cm

Whitney is thinking of a number.

Rounded to the nearest whole her number is 4
Rounded to the nearest tenth her number is 3.8
Write down at least 4 different numbers that she could be thinking of.

Possible answers:
3.84
3.83
3.82 etc.

Some children might include answers such as 3.845

A number between 11 and 20 with 2 decimal places rounds to the same number when rounded to one decimal place and when rounded to the nearest whole number?

What could this be?
Is there more than one option?
Explain why.

The whole number can range from 11 to 19 and the decimal places can range from ___.95 to ___.99

Can children explain why this works?

Order and Compare Decimals (Thursday)

Alex says,

3.105 is greater than 3.2 because 105 is greater than 2

Do you agree?
Explain your answer.

Tommy says,

I have put some numbers into ascending order:

3.015

$3\frac{51}{1000}$

3.105

$3\frac{51}{100}$

Tommy has missed one number out.
It should go in the middle of this list.
What could his number be?
What can't his number be?

Order and Compare Decimals ANSWERS (Thursday)

Alex says,

3.105 is greater than 3.2 because 105 is greater than 2

Do you agree?
Explain your answer.

Alex is wrong because 2 tenths is larger than 105 thousandths.

Tommy says,

I have put some numbers into ascending order:

3.015

$3\frac{51}{1000}$

3.105

$3\frac{51}{100}$

Tommy has missed one number out.
It should go in the middle of this list.
What could his number be?
What can't his number be?

Could be:
3.052
3.053
3.054
3.104 etc.

It can't be a number below 3.051 or above 3.105