

## Rounding Decimals (Monday)

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.

## Ordering and Comparing Decimals (Tuesday)

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.

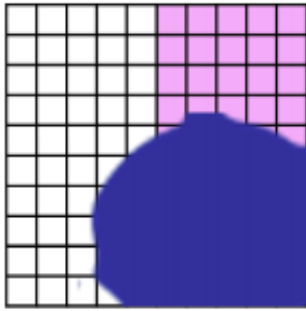
It should go in the middle of this list.

What could his number be?

What can't his number be?

### Understanding Percentages (Wednesday)

Oh no! Dexter has spilt ink on his hundred square.



Complete the sentence stems to describe what percentage is shaded.

It could be...

It must be...

It can't be...

Mo, Annie and Tommy all did a test with 100 questions. Tommy got 6 fewer questions correct than Mo.

Name	Score	Percentage
Mo	56 out of 100	
Annie		65%
Tommy		

Complete the table.

How many more marks did each child need to score 100%?

Dora and Amir each have 100 sweets. Dora eats 65% of hers. Amir has 35 sweets left.

Who has more sweets left?

## Percentages as Fractions and Decimals (Thursday)

Teddy says,



To convert a fraction to a percentage, you just need to put a percent sign next to the numerator.

Is Teddy correct? Explain your answer.

At a cinema,  $\frac{4}{10}$  of the audience are adults.

The rest of the audience is made up of boys and girls.

There are twice as many girls as boys.

What percentage of the audience are girls?

Three children have each read 360 pages of their own book.

Ron's book has 500 pages.

Dora's book has 400 pages.

Eva's book has 600 pages.

What fraction of their books have they each read?

What percentage of their books have they read?

How much of their books have they each read as a decimal?

Who has read the most of their book?

### Equivalent F.D.P (Friday)

Sort the fractions, decimals and percentages into the correct column.

50%

100%

$\frac{30}{60}$

Seven tenths

60%

0.25

70 hundredths

$\frac{1}{4}$

7%

Less than $\frac{1}{2}$	Equal to $\frac{1}{2}$	Greater than $\frac{1}{2}$

Jack has £55

He spends  $\frac{3}{5}$  of his money on a coat and 30% on shoes.

How much does he have left?

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Tommy is playing a maths game.  
Here are his scores at three different levels.

Level A - 440 points out of 550

Level B - 210 points out of 300

Level C - 45 points out of 90

At which level did he have a higher success rate?

## Rounding Decimals ANSWERS (Monday)

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  $\underline{\quad}.95$  to  $\underline{\quad}.99$

Can children explain why this works?

Ordering and Comparing Decimals ANSWERS (Tuesday)

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

$3\frac{51}{100}$



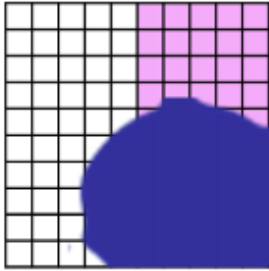
Tommy has missed one number out.  
It should go in the middle of this list.  
What could his number be?  
What can't his number be?

Could be:  
3.052  
3.053  
3.054  
3.104 etc.

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

## Understanding Percentages ANSWERS (Wednesday)

Oh no! Dexter has spilt ink on his hundred square.



Complete the sentence stems to describe what percentage is shaded.

It could be...

It must be...

It can't be...

Some possible answers:

It could be 25%

It must be less than 70%

It can't be 100%

Mo, Annie and Tommy all did a test with 100 questions. Tommy got 6 fewer questions correct than Mo.

Name	Score	Percentage
Mo	56 out of 100	
Annie		65%
Tommy		

Complete the table.

How many more marks did each child need to score 100%?

56%  
65 out of 100  
50 out of 100  
50%

Mo needs 44  
Annie needs 35  
Tommy needs 50

Dora and Amir each have 100 sweets. Dora eats 65% of hers. Amir has 35 sweets left.

Who has more sweets left?

Neither. They both have an equal number of sweets remaining.



## Percentages as Fractions and Decimals ANSWERS (Thursday)

Teddy says,



To convert a fraction to a percentage, you just need to put a percent sign next to the numerator.

Teddy is incorrect, this only works when the denominator is 100 because percent means parts per hundred.

Is Teddy correct? Explain your answer.

At a cinema,  $\frac{4}{10}$  of the audience are adults.

The rest of the audience is made up of boys and girls.

There are twice as many girls as boys.

What percentage of the audience are girls?

60% are children, so 40% are girls and 20% boys.

Children may use a bar model to represent this problem.

Three children have each read 360 pages of their own book.

Ron's book has 500 pages.

Dora's book has 400 pages.

Eva's book has 600 pages.

What fraction of their books have they each read?

What percentage of their books have they read?

How much of their books have they each read as a decimal?

Who has read the most of their book?

Ron has read  $\frac{360}{500}$ ,  
72% or 0.72

Dora has read  $\frac{360}{400}$ ,  
90% or 0.9

Eva has read  
 $\frac{360}{600}$ , 60% or 0.6

Dora has read the most of her book.

## Equivalent F.D.P. ANSWERS (Friday)

Sort the fractions, decimals and percentages into the correct column.

50%                  100%                   $\frac{30}{60}$

Seven tenths                  60%                  0.25

70 hundredths                   $\frac{1}{4}$                   7%

Less than $\frac{1}{2}$	Equal to $\frac{1}{2}$	Greater than $\frac{1}{2}$

Less than  $\frac{1}{2}$  :  
 $\frac{1}{4}$ , 0.25, 7%

Equal to  $\frac{1}{2}$  :  
50% and  $\frac{30}{60}$

Greater than  $\frac{1}{2}$  :  
Seven tenths, 70 hundredths, 60% and 100%

Jack has £55  
He spends  $\frac{3}{5}$  of his money on a coat and 30% on shoes.  
How much does he have left?

£5.50

Tommy is playing a maths game.  
Here are his scores at three different levels.

Level A – 440 points out of 550

Level B – 210 points out of 300

Level C – 45 points out of 90

At which level did he have a higher success rate?

Level A: 80%  
Level B: 70%  
Level C: 50%

Tommy had a higher success rate on level A.

Children may wish to compare using decimals instead.