White Rose Maths Equivalent fractions, decimals and percentages.

Question 1

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 $\frac{1}{2}$

Question 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?

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?

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Looking for Patterns

Have you ever wondered what a fraction looks like as a pattern?

Probably not. But you're about to find out!

Remember, to convert a fraction to a decimal, we divide the top number, the *numerator*, by the bottom number, the *denominator*.

For example,

$\frac{1}{2} = 1 \div 2 = 0{\cdot}5$

$\frac{1}{4} = 1 \div 4 = 0{\cdot}25$

Sometimes it helps to use a calculator to convert a fraction to a decimal.

For example,

$\frac{2}{7}$ = [2] [÷] [7] [=] 0·285714285714 …

$\frac{7}{11}$ = [7] [÷] [1] [1] [=] 0·63636363636 …

What do you notice about the decimals in the last 2 examples above?

Here is a way of representing these decimals as patterns.

What fractions make interesting decimal patterns? Investigate.

What does your date of birth look like as a pattern?

For example, 14th June 2001: 1406200114062001 …

What about today's date?

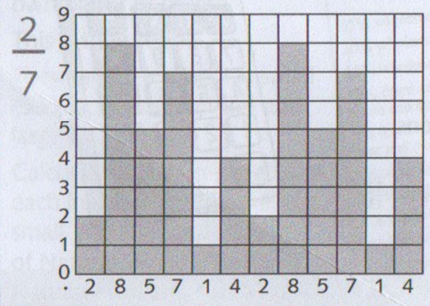
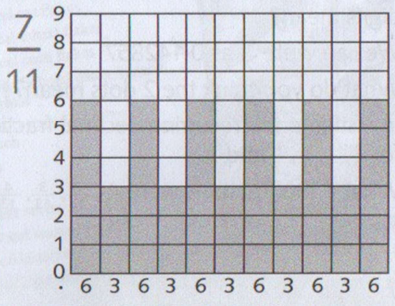
What other dates make interesting patterns?

What would the time on a 24-hour digital clock look like as a pattern?

For example, 16:34 would be 1634163416341634 …

What about other times?

How could you use 2 different colours to show the addition of 2 numbers as a pattern?

For example, 3541 + 5038 = 8579.

Investigate.