



Maths Musts

Year 6 Autumn 2

Year 6 Objective: Recall and use equivalences between simple fractions, decimals and percentages.

Children need to know key decimal, fraction and percentage equivalents (as listed in the table below). They should be able to use these facts to work out other equivalents eg: use the fact that $\frac{1}{10}$ is equivalent to 0.1, to work out that $\frac{2}{10}$ is equivalent to 0.2.

Decimal	Percentage	Fraction
1.0	100%	$\frac{1}{1}$ $\frac{2}{2}$ $\frac{3}{3}$
0.5	50%	$\frac{1}{2}$
0.25	25%	$\frac{1}{4}$
0.75	75%	$\frac{3}{4}$
0.1	10%	$\frac{1}{10}$
0.2	20%	$\frac{1}{5}$ and $\frac{2}{10}$
0.33	33.3%	$\frac{1}{3}$
0.01	1%	$\frac{1}{100}$

Try these activities:

Match the equivalent fractions, decimals and percentages.

$\frac{15}{100}$

0.05

5%

$\frac{1}{20}$

0.5

15%

$\frac{1}{5}$

0.2

50%

$\frac{1}{2}$

0.15

20%

Use the digit cards to write a decimal greater than $\frac{1}{5}$ but less than 40%.

You may not use a card more than once in each number.

0 1 2 3 4 5

.

Complete the table.

Fraction	Decimal	Percentage
	0.21	
		12%
$\frac{2}{10}$		
	0.4	
	0.44	
		4%
$\frac{3}{4}$		
	0.99	

How many other answers can you find?



The strategies below can be used to convert from one form to another.

FROM PERCENT TO DECIMAL

To convert from percent to decimal divide by 100 and remove the % sign.

An easy way to divide by 100 is to **move the decimal point 2 places to the left**:

From Percent		To Decimal	
75%		0.75	move the decimal point 2 places to the left

Don't forget to remove the % sign!

FROM FRACTION TO DECIMAL

To convert a fraction to a decimal divide the top number by the bottom number:

Example: Convert $\frac{2}{5}$ to a decimal

Divide 2 by 5: $2 \div 5 = 0.4$

Answer: $\frac{2}{5} = 0.4$

FROM FRACTION TO PERCENTAGE

To convert a fraction to a percentage divide the top number by the bottom number, then multiply the result by 100%

Example: Convert $\frac{3}{8}$ to a percentage

First divide 3 by 8: $3 \div 8 = 0.375$

Then multiply by 100%: $0.375 \times 100\% = 37.5\%$

Answer: $\frac{3}{8} = 37.5\%$

Website links:

https://mathsframe.co.uk/en/resources/resource/120/match_fractions_decimals_and_percentages#.UCdcd2MsCEY

<https://www.bbc.co.uk/bitesize/articles/zjckjp3>