





Steps to Success

Date	28.1.21
Subject/s	Maths
Learning Objective 	To compare and order fractions, decimals and percentages

SA 	TA 
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Success Criteria 	I know percentages have a denominator of 100		
	I can use place value to write decimals as fractions		
	I can convert fractions to decimals or percentages		
	I can use $<$ $>$ $=$ to compare fractions		
Support	Independent	Adult Support ()	Group Work

Pre-task

Use $<$, $>$ or $=$ to complete the statements:

60% 0.6 $\frac{3}{5}$

0.23 24% $\frac{1}{4}$

37.6% $\frac{3}{8}$ 0.27

Pre-task Answers

Use $<$, $>$ or $=$ to complete the statements:

$$60\% \quad (=) \quad 0.6 \quad (=) \quad \frac{3}{5}$$

$$0.23 \quad (<) \quad 24\% \quad (<) \quad \frac{1}{4}$$

$$37.6\% \quad (>) \quad \frac{3}{8} \quad (>) \quad 0.27$$

Teacher Led

Key Information

Percent means out of one hundred. It is often shown with the symbol %.

$>$, $<$ and $=$ are comparison symbols used to represent more than ($>$), less than ($<$) and equal to ($=$).

A **numerator** is the top part of a fraction. It shows how many parts of the whole are being considered.

A **denominator** is the bottom part of a fraction. It shows how many equal parts the whole has been split into.

Sometimes, we may need to compare a mixture of fractions, decimals and percentages.

$$67\% \quad \square \quad \frac{4}{10} \quad \square \quad 0.93$$

At the moment, we can't compare these. We need to change them to the same format. Would you change them all into fractions, decimals or percentages?

Converting fractions and decimals into percentages would be the most efficient way.

67%

As this is already written as a percentage, we do not need to change it.

0.93

0.93 means the same as 93 out of 100 or 93%.

$\frac{4}{10}$

We need to convert four tenths to a percentage by working out what it would be as a fraction out of 100.

To change four tenths into a percentage, we can convert it into hundredths.

$$\frac{4}{10} = \frac{40}{100}$$

Four tenths is equivalent to forty out of one hundred or forty percent.

Although we have converted all three to percentages to help us, we need to compare them in their original format.

$$67\% \quad \square \quad \frac{4}{10} \quad \square \quad 0.93$$

(67%) *(40%)* *(93%)*

What symbols do we use to compare them?

We need to look carefully at the fraction, decimal and percentage to ensure we use the correct symbol.

$$67\% \quad > \quad \frac{4}{10} \quad < \quad 0.93$$

(67%) *(40%)* *(93%)*

More than Less than

I can also put them in order now. Remember – ascending order means smallest to largest, descending order means largest to smallest.

Here is ascending order: $\frac{4}{10}$, 67%, 0.93

Here is another example

We can convert the following fraction, decimal and percentage into the same format.

71%



0.75



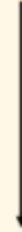
$\frac{3}{4}$



71%



75%



75%

Fluency A

1a. Frankie wants to compare her spelling scores for the last 4 weeks.

Week 1	Week 2	Week 3	Week 4
75%	0.55	65%	$\frac{4}{10}$

Put her scores in ascending order.



VF

2a. Complete the comparison statements below using the $<$, $>$ or $=$ symbol.

A. 35% $\frac{2}{4}$

B. 75% 0.6



VF

3a. Which percentage is needed to complete the sequence below?

0.05 ? 0.45 $\frac{5}{10}$

75%

30%

100%



VF

4a. Insert the values provided below in order to make the statement correct.

$<$ $<$

0.5 $\frac{3}{4}$ 45%



VF

Fluency B

5a. Rita wants to compare her arithmetic scores for the last 4 weeks.

Week 1	Week 2	Week 3	Week 4
62%	0.71	0.8	$\frac{5}{8}$

Put her scores in ascending order.



VF

6a. Complete the comparison statements below using the $<$, $>$ or $=$ symbol.

A. 0.85 $\frac{7}{8}$

B. 62.5% $\frac{5}{8}$



VF

7a. Which percentage is needed to complete the sequence below?

0.09 ? 0.35 $\frac{8}{12}$

8%

5%

23%



VF

8a. Insert the values provided below in order to make the statement correct.

$>$ $>$

20% $\frac{3}{8}$ 0.6



VF

Problem Solving and Reasoning

In his first Geography test, Mo scored 38%

In the next test he scored 40

Did Mo improve his score?
Explain your answer.

Explain it!



Maaria says,

If I eat 37.5% of the pizza and Paul eats three eighths, I will have eaten the most.



Explain it!



Is she correct? Explain your answer.

Complete the calculation using a decimal and a percentage.

Use it!



$$\frac{3}{12} < 82\% < \square < \square$$

Find 3 possibilities.

**Problem Solving and Reasoning
Answers**

Mo improved his score.

$\frac{16}{40}$ is equivalent to

40% which is greater than his previous score of 38%

No, both Maaria and Paul will have eaten the same amount because $\frac{3}{8}$ is equal to 37.5%.

**Various answers, for example:
0.88 and 90%, 0.89 and 91%, 0.9 and 95%.**