

Dr Fog Presents

**How to convert
any percentage to
a fraction or decimal.**

Year 6 (National Numeracy Strategy)
(Based on DFEE Sample Lessons)



Resources

- None!



Mental Learning Objective

- Expressing simple fractions or decimals as percentages and vice versa.
- Expressing simple fractions as decimals and vice versa.



Mental Learning Task

- Today we are going to convert percentages into decimals and fractions.



Mental Learning Task

1

4

7

17

7

3

170

2

5

10

25

50

4

200

- Can you put these into order of size?
- Start with the smallest.
- Why do you think that?



Mental Learning Task

1

4

7

17

7

3

170

2

5

10

25

50

4

200

- Which fractions are more than half?
- Which are less than half?



Mental Learning Task

1

4

7

17

7

3

170

2

5

10

25

50

4

200

- It is quite hard to compare some of these fractions.
- Write the percentage equivalents of any you know below the fraction.



Mental Learning Task

1

4

7

17

7

3

170

2

5

10

25

50

4

200

- Is it now easier to put these fractions into order?



Mental Learning Task

<u>1</u>	<u>4</u>	<u>7</u>	<u>17</u>	<u>7</u>	<u>3</u>	<u>170</u>
2	5	10	25	50	4	200

- A fraction can be turned into a percentage (*which is a number out of 100*) by converting it into an equivalent fraction with a denominator of 100



Mental Learning Task

1

4

7

17

7

3

170

2

5

10

25

50

4

200

- All these fractions can easily be turned into percentages as they all have easily found equivalents with a denominator 100.



Mental Learning Task

1

4

7

17

7

3

170

2

5

10

25

50

4

200

100

100

100

100

100

100

100

- Can you know turn all these fractions into something over 100?

Mental Learning Task

1

4

7

17

7

3

170

2

5

10

25

50

4

200

100

100

100

100

100

100

100

%

%

%

%

%

%

%

- Can you now write these fractions as a percentage?

Mental Learning Task

<u>1</u>	<u>4</u>	<u>7</u>	<u>17</u>	<u>7</u>	<u>3</u>	<u>170</u>
2	5	10	25	50	4	200

100 100 100 100 100 100 100
% % % % % % % %

- Convert them to decimals as another way of comparing them.

Mental Learning Task

1

4

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17

7

3

170

2

5

10

25

50

4

200

100

100

100

100

100

100

100

%

%

%

%

%

%

%

- Remember that the fraction $\frac{3}{4}$ means 3 divided by 4.

Mental Learning Task

1

4

7

17

7

3

170

2

5

10

25

50

4

200

100

100

100

100

100

100

100

%

%

%

%

%

%

%

- Divide the other fractions into decimal equivalents.

Mental Learning Task

1

4

7

17

7

3

170

2

5

10

25

50

4

200

100

100

100

100

100

100

100

%

%

%

%

%

%

%

- Are the fractions now easier to order?

Mental Learning Objective

- Expressing simple fractions or decimals as percentages and vice versa.
- Expressing simple fractions as decimals and vice versa.



Main Learning Objective

- *Continuing learning objectives from Mental section.*
- Expressing simple fractions or decimals as percentages and vice versa.
- Expressing simple fractions as decimals and vice versa.



Key idea

To turn a percentage to a fraction, write it as a fraction with a denominator of 100.



Main Learning Task

- You are now going to be given several percentages which you have to turn into both fractions and decimals.



Main Learning Task

- Copy and complete this table.

Percentage	25%	50%	20%	100%	75%	40%	12%
Fraction (out of 100)							
Simpler fraction							
Decimal							

Main Learning Task

- Challenge:-
- Get pupils to make up more similar examples for a friend to work out.



Main Learning Objective

- *Continuing learning objectives from Mental section.*
- Expressing simple fractions or decimals as percentages and vice versa.
- Expressing simple fractions as decimals and vice versa.



Plenary

- Discuss how they completed the task.
- Which ones were easy?
- Why were they easy?



Plenary

- Remember in order to turn a percentage into a fraction, you must write it as a fraction with a 100 in the denominator.
- How did you do with writing the fractions in their lowest terms?



Plenary

- Did you use division by 100 to turn the percentage into a decimal?



Review of Key Idea

- To turn a percentage to a fraction, write it as a fraction with a denominator of 100.
- Did you learn this today?



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