

Diving into Mastery



# Understand Percentages

# Diving into Mastery Guidance for Educators

Each activity sheet is split into three sections, diving, deeper and deepest, which are represented by the following icons:



**Diving**



**Deeper**



**Deepest**

These carefully designed activities take your children through a learning journey, initially ensuring they are fluent with the key concept being taught; then applying this to a range of reasoning and problem-solving activities.

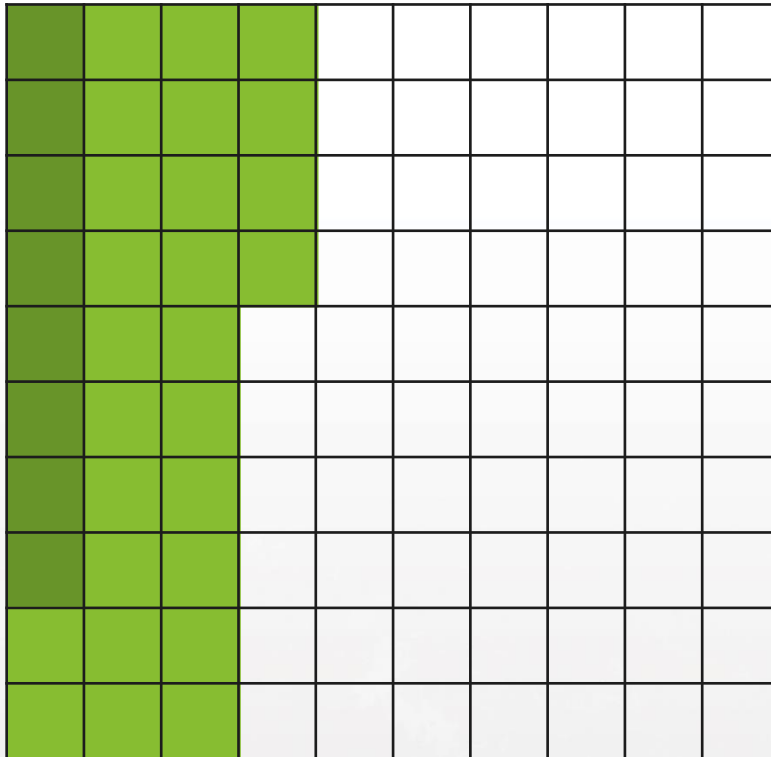
These sheets might not necessarily be used in a linear way. Some children might begin at the 'Deeper' section and in fact, others may 'dive straight in' to the 'Deepest' section if they have already mastered the skill and are applying this to show their depth of understanding.

# Aim

- Recognise the per cent symbol and understand that per cent relates to 'number of parts per hundred', and write percentages as a fraction with denominator 100, and as a decimal.



Complete the statements about the 100 square.



There are **34** parts per 100 shaded.

**34%** is shaded.





Put these percentages in order, from the smallest to the largest value percentage represented.

c) 7%

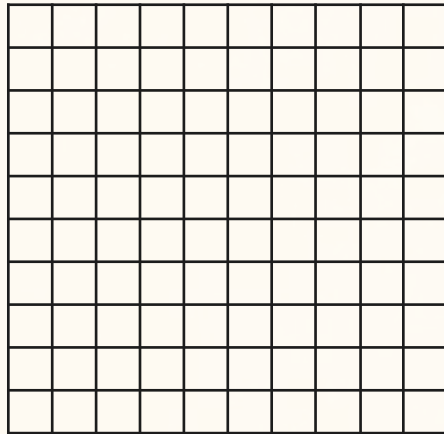


b) 

a) 73 parts per 100



Ben colours in the whole of this 100 square using different colours.



He is only allowed to use colours in the percentage amounts given below:

45% = red	10 parts per hundred = yellow
25% = green	60 parts per hundred = pink
55% = black	20 parts per hundred = blue
35% = orange	5 parts per hundred = purple

Find a way of colouring in 100% of the square that uses exactly 4 colours.  
Can you find more than one answer?

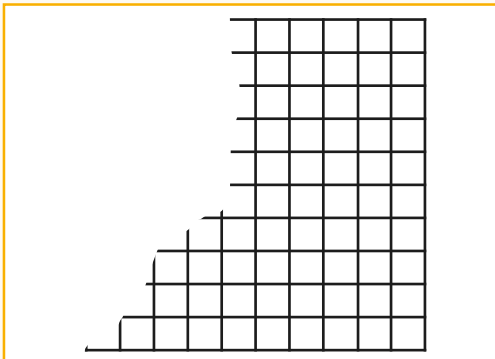
Answers vary. example answers shown:

- blue (20%) + green (25%) + red (45%) + yellow (10%)
- pink (60%) + green (25%) + yellow (10%) + purple (5%)
- pink (60%) + orange (35%) + purple (5%)
- red (45%) + black (55%)

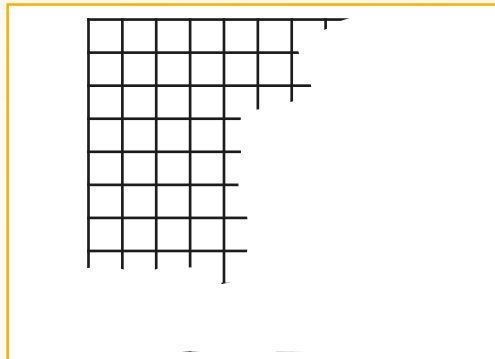


Before it got torn, Jack had coloured blue 45% of a 100 square.

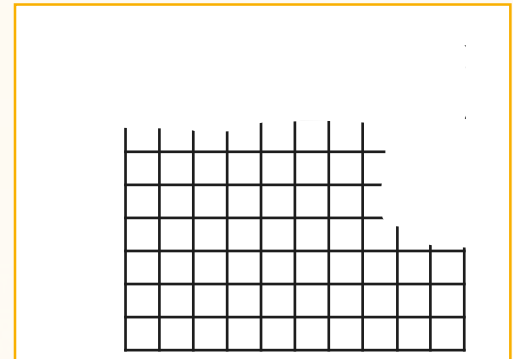
Which of these torn pieces could have been from Jack's 100 square? Which could not? Explain your answers fully.



This could not be part of Jack's square: we can see that 73 out of 100 squares are still white, which means that only 27% of the square could have been coloured blue.



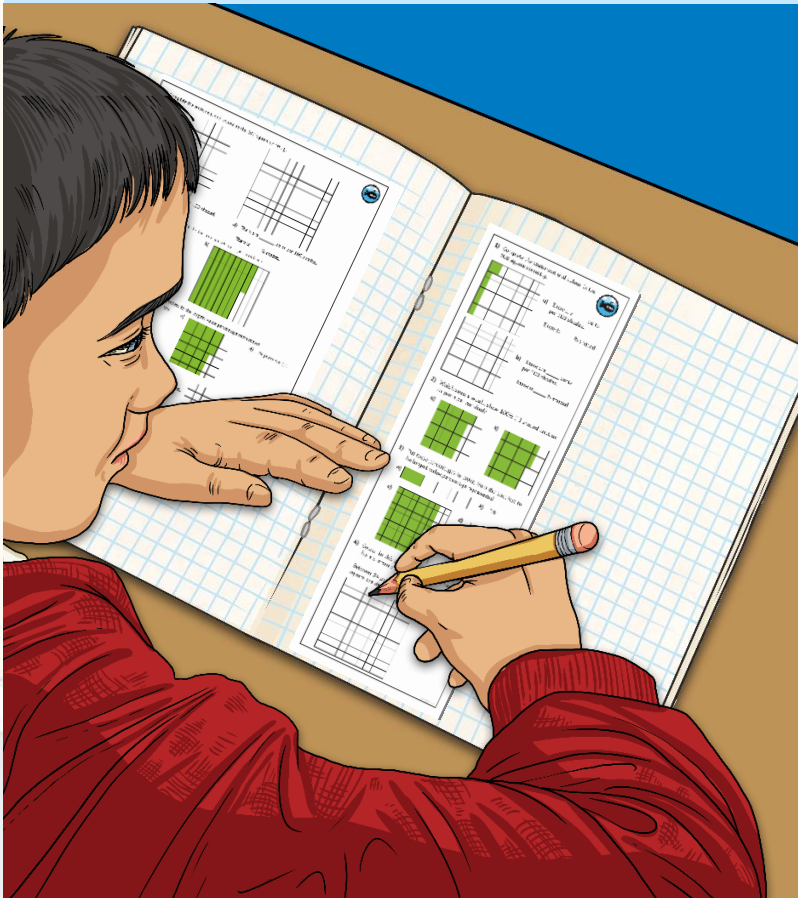
This could have been part of Jack's square: we can see that 50 squares are still white. So out of the 50 missing squares, 45 could be blue.




This could not be part of Jack's square: we can see that 64 squares are still white which means that a maximum of 36% could have been coloured blue.

# Understand Percentages


Dive in by completing your own activity!



1) Shading  
Which of  
Explain

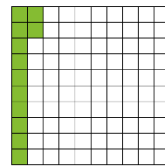
a) 

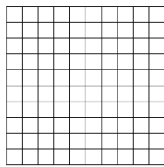
2) True or False  
a) 24%  
b) There are 24 parts per 100 shaded.

2) True or False  
a) 

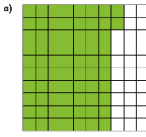
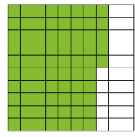
3) At the bottom of the page, there are boxes for 'Check', 'G', and '3) Selecter in the most'.

1) Complete the statement and colour in the 100 square correctly.


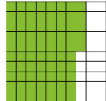
a)  There are 10 parts per 100 shaded.  
There is 10% shaded.

b)  There are 25 parts per 100 shaded.  
There is 25% shaded.

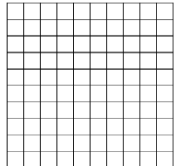
2) Which square would show 100% if I shaded another 25 parts per hundred?

a)  b) 

3) Put these percentages in order, from the smallest to the largest value percentage represented.

a)  2% b) 3% c)  30% d) 34 parts per 100

4) Colour in this 100 square so that it matches this statement:  
Between  $8\frac{1}{4}$  parts per 100 and 90% of this 100 square are shaded.



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# Need Planning to Complement this Resource?

## National Curriculum Aim

Recognise the per cent symbol and understand that per cent relates to 'number of parts per hundred', and write percentages as a fraction with denominator 100, and as a decimal.

For more planning resources to support this aim, [click here](#).

The collage displays various educational materials for percentages, including interactive slides, worksheets, and jigsaws. Key elements include:

- Tell Me:** A slide featuring a deer and a percentage sign (%).
- Percentage Power:** A slide with a large play button icon.
- Percentage Diagrams:** A slide showing a grid with 55% shaded.
- Percentages, Fractions and Decimals:** A slide with a man's face and the equation  $63\% = \frac{63}{100} = 0.63$ .
- Percentage Jigsaws:** A slide with a large play button icon.
- Equivalent Match Up:** A slide with strawberries and a jigsaw puzzle.
- Fractions: Percentage Power:** A worksheet with a table.
- Percentage Colouring:** A worksheet with a grid.
- Fractions: Percentage Jigsaws:** A worksheet with a table.
- Percentage Equivalents Jigsaw:** A worksheet with a jigsaw puzzle.

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