



THIRD SPACE  
LEARNING

# GCSE Exam Questions

Fractions, Decimals and  
Percentages | Number

## GCSE Exam Questions: Fractions, Decimals and Percentages

- 1) (a) Write  $\frac{3}{5}$  as a decimal.

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(1)

- (b) Write 0.3 as a fraction.

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(1)

- (c) Write 0.57 as a percentage.

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(1)  
(3 marks)

- 2) Victoria's weight decreased from 67.2kg to 59.3kg.  
Calculate the percentage decrease in Victoria's weight.  
Give your answer to 3 significant figures.

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(3 marks)

- 3) A family ticket to the cinema costs £24 plus VAT at 20%.  
Work out the total cost of the family ticket.

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(3 marks)

- 4) Prove algebraically that the recurring decimal

$0.5\dot{2}\dot{1}$

has the value of  $\frac{86}{165}$

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(4 marks)

## GCSE Exam Questions: Fractions, Decimals and Percentages

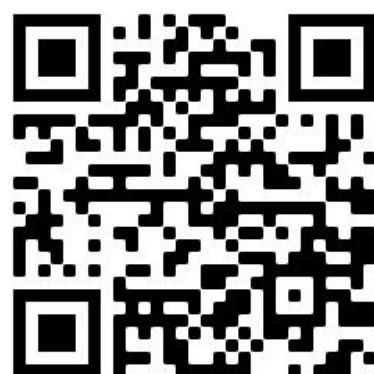
|               | Question  | Answer   | Marks  |
|---------------|---|--|--|
| <b>1) (a)</b> | Write $\frac{3}{5}$ as a decimal.   | <b>(a)</b> 0.6   | <b>(1)</b>   |
| <b>(b)</b>    | Write 0.3 as a fraction.  | <b>(b)</b> $\frac{3}{10}$  | <b>(1)</b>   |
| <b>(c)</b>    | Write 0.57 as a percentage.   | <b>(c)</b> 57%   | <b>(1)</b>   |
| <b>2)</b>     | Victoria's weight decreased from 67.2kg to 59.3kg. Calculate the percentage decrease in Victoria's weight. Give your answer to 3 significant figures. | $67.2 - 59.3 = 7.9$<br>$\frac{7.9}{67.2} \times 100 = 11.7559\dots$<br>11.8%   | <b>(1)</b><br><b>(1)</b><br><b>(1)</b>               |
| <b>3)</b>     | A family ticket to the cinema costs £24 plus VAT at 20%. Work out the total cost of the family ticket.  | 20% is £4.80<br>£24 + £4.80<br>£28.80  | <b>(1)</b><br><b>(1)</b><br><b>(1)</b>               |
| <b>4)</b>     | Prove algebraically that the recurring decimal $0.5\dot{2}\dot{1}$ has the value of $\frac{86}{165}$  | $x = 0.5212121\dots$<br>$100x = 52.12121\dots$<br>$99x = 51.6$<br>$x = \frac{51.6}{99} = \frac{516}{990} = \frac{86}{165}$ | <b>(1)</b><br><b>(1)</b><br><b>(1)</b><br><b>(1)</b> |

# Where to go next?

For more diagnostic questions, and GCSE maths revision resources and worksheets to support students in fixing any misconceptions take a look at the free Third Space Learning [GCSE maths revision](#) pages.

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