

Fractions and percentages

Percentages are measured out of a total of 100.
 “In a survey of 100 people, 20 said they had gone to the doctors in the last month”. Therefore **20%** had been to the doctors.

Express these quantities as percentages :

- | | |
|--------------------|--------------------|
| 1. 25 out of 100 = | 4. 5 out of 100 = |
| 2. 50 out of 100 = | 5. 90 out of 100 = |
| 3. 75 out of 100 = | 6. 10 out of 100 = |

7. Use a 1 - 100 grid to show each of the percentages in questions 1 to 6. Shade in the correct percentage (number of squares out of 100).

8. Out of 100 people, 35 were **left** handed.

- (a) How many were **right** handed? (b) What percentage is this?

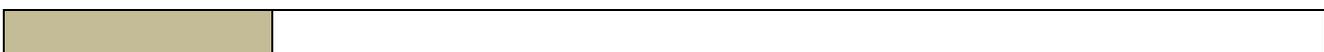
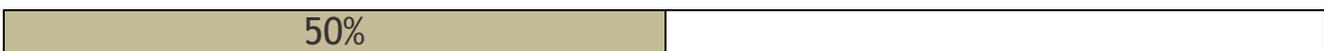
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9. In a football match, the blue team had **40%** possession of the ball. What percentage of time did the red team have the ball?

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Use this bar below to shade 40% in blue and the rest of the bar in red to show the possession.

10. Estimate the **percentages** shaded in these diagrams. The first is done for you.



11. Write down the percentage shaded in these diagrams.

(a)



(b)



(c)



(a)%

(b)%

(c)%

11. Four students did a test **out of 50**. Here are their results.

20

25

40

18

“20 out of 50 is the same as saying 40 out of 100. This is 40%.”

Write out similar sentences for the other 3 test scores.

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13. 120 out of 200 students have a packed lunch. What **percentage** have packed lunch?

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14. A survey found that “75% of boys played sport and 80% of girls played sport”.

Does this mean more girls play sport than boys? Explain your answer.

Yes

No

Reason.....

