

Two Way Tables

KS3 Maths · Follows the national curriculum

Name _____ Class _____ Date _____

1. Worked example

Using the completed trip table, how many girls chose the zoo?

Step 1 · Find the Girls row

Girls: 10, 9, 16

Step 2 · Go across to the Zoo column

9

Answer: 9 girls

Check: The Zoo column $15 + 9 = 24$ matches its total ✓

2. Now try one with the steps

In the trip table, the boys' row is 12, 15, ?, total 35. Find the missing value.

Step 1 · The row must add up to its total

Step 2 · Subtract

Answer:

3. Practice

Show your working. The marks tell you how much is expected.

1. A table shows pets owned by 60 pupils. Year 7: dog 14, cat 9, none 7. Year 8: dog 11, cat 6, none 13. How many Year 8 pupils have a cat? [1]

2. Using the pets table, how many pupils have no pet? [1]

3. Using the pets table, how many pupils have a dog? [1]

4. Using the pets table, how many Year 7 pupils have a dog or a cat? [1]

5. Using the pets table, which year group has more pet owners? [1]
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6. Using the pets table, find the probability that a pupil chosen at random has a dog. [1]
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7. Using the pets table, find the probability that a pupil chosen at random is in Year 8 and has no pet. [1]
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8. Using the pets table, what fraction of the Year 7 pupils have no pet? [1]
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9. Using the pets table, what percentage of all the pupils have a cat? [1]
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10. 100 people were asked if they wear glasses. 45 are men, and 30 of the men wear glasses. 25 of the women wear glasses. How many women do not wear glasses? [2]
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11. Using the glasses survey, how many people do not wear glasses altogether? [2]
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12. Using the glasses survey, find the probability that a person chosen at random wears glasses. [2]
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13. 80 pupils: 36 have school dinners and the rest bring packed lunches. 45 are boys, and 22 of the boys have school dinners. How many girls bring packed lunches? [3]
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14. In the school dinners survey, what fraction of the pupils who have school dinners are girls? [2]
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4. Before you hand it in

Reading 'Year 8 with a cat' from the wrong row or column

Put one finger on the row and one on the column, and move them together to the cell where they meet.

'What fraction of the girls chose theatre?' answered as 16/70

The words 'of the girls' mean the whole is the girls' total, 35. So the answer is 16/35.

Filling every gap but never checking the totals

When the table is complete, add every row AND every column. Both the row totals and the column totals must give the grand total.

Adding the totals column into a row sum

Add only the category cells: $12 + 15 + 8 = 35$. The total cell is the answer, not part of the sum.