



Two-way tables

GRADE 8 MATH

Name _____

Date _____

Give every percentage with what it is a percentage of. Check totals both ways.

WORKED EXAMPLE

Two categorical variables, every individual in one box. Check totals both ways. Compare with relative frequencies, not counts — different group sizes make counts compare size instead of behaviour. Always name the denominator.

1. Why should you check a two-way table's totals both ways before interpreting it?

FLUENCY

Show your thinking

Answer

2. From the table (pet/chores 42, pet/none 18, no-pet/chores 30, no-pet/none 10), find the percentage of pet owners who do NOT do chores, and the same for non-owners.

APPLICATION

Show your thinking

Answer

3. Add your two answers to the row percentages from the exit ticket. What do you notice, and why must that happen?

REASONING

Show your thinking

Answer

4. Explain why comparing 42 with 30 compares the group sizes rather than the chore habit.

REASONING

Show your thinking

Answer

5. The rates differ by 5 percentage points. How many students would have to answer differently to erase that gap? What does that tell you?

REASONING

Show your thinking

Answer

6. What share of the students who do chores have a pet? State the denominator you used.

APPLICATION

Show your thinking

Answer

7. A different school reports that 50 of its 60 pet owners do chores, against 30 of 40 non-owners. Compare the rates, and say whether the association looks stronger or weaker than in our data.

REASONING

Show your thinking

Answer

8. Give a two-way table in which one group has a larger count AND a larger rate.

REASONING

Show your thinking

Answer

9. Why does the standard ask for relative frequencies calculated for ROWS or COLUMNS rather than for the whole table?

REASONING

Show your thinking

Answer