



Two-way tables

GRADE 8 MATH

Name _____

Date _____

Give every percentage with what it is a percentage of.

WORKED EXAMPLE

Check totals both ways. Compare groups with row (or column) relative frequencies, never raw counts — unequal groups make counts compare size. Name the denominator every time.

1. Of 150 people: 60 walk to work and 30 of those own a bike; 90 drive and 27 of those own a bike. Build the two-way table with totals.

APPLICATION

Show your thinking

Answer

2. What percentage of walkers own a bike? What percentage of drivers do?

APPLICATION

Show your thinking

Answer

3. Which group is more likely to own a bike? Would comparing the raw counts 30 and 27 have given the same answer?

REASONING

Show your thinking

Answer

4. What percentage of bike owners walk to work? State your denominator.

APPLICATION

Show your thinking

Answer

5. A survey finds 80 of 200 boys and 60 of 120 girls chose science. Which group chose it more, and by how much?

APPLICATION

Show your thinking

Answer

6. Explain why a percentage reported without its denominator cannot be interpreted.

REASONING

Show your thinking

Answer

7. A club reports “more of our members are beginners than experts”. What would you need to know to judge whether that is a meaningful pattern?

REASONING

Show your thinking

Answer

8. Why can two-way tables show association just as scatter plots can, even though there are no numbers to plot?

REASONING

Show your thinking

Answer