

Estimate the quantity of objects in collections and make estimates...

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Learning intention

- estimate the quantity of objects in collections and make estimates when solving problems to determine the reasonableness of calculations

Teach and model

- estimating how much space a grid paper representation of a large number such as 20 200 will take up on the wall and how much paper will be required
- estimating the number of people in a large gathering; for example, school assembly, using known numbers, such as how many students per class
- choosing which place value they would estimate to for different situations; for example, they would estimate to the nearest 10 when estimating how many dots on a...

Check understanding

- Explain the main idea in estimate the quantity of objects in collections and make estimates... using an example.
- Show the idea in a second way: with words, a model, a diagram or symbols.
- Apply the idea to a short unfamiliar situation and justify the result.

Teaching cautions

- Ask the student to explain their choice, not only state an answer.
- Check that key vocabulary is understood in a new example.
- Mix representations so the skill is transferred rather than copied.

Quick lesson sequence

- Connect to prior knowledge and introduce the key vocabulary.
- Model one clear example, then solve a second example together.
- Finish with an independent check and a short student explanation.