

Can I use a calculator to solve problems with more than one step?

Teaching guidance

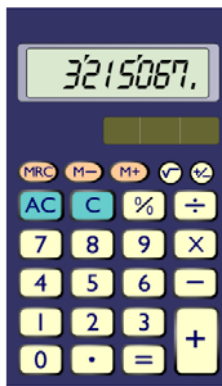
Key vocabulary

operation, multi-step, estimate, calculate, check, calculation, method, show your method

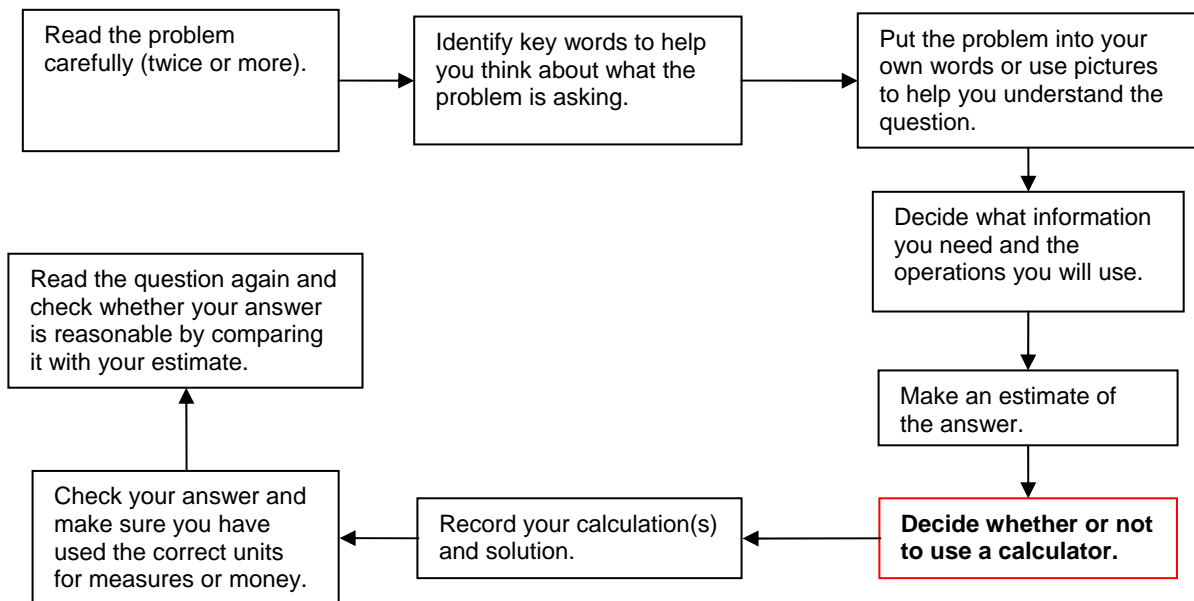
Models and images

Use a projected calculator to show how you solve a question.

Model how you would 'show your method'.



Encourage children to use key steps when solving problems, with or without a calculator.



Teaching tips

- Model and discuss how to distinguish between important and redundant information in word problems.
- Encourage children to annotate questions to help them find the key words and numbers. Good examples of annotation, estimation, calculating and checking should be displayed as part of the classroom learning environment.
- Discuss and review when it is appropriate to use a calculator to solve problems. Offer children a range of problems and ask them to say when they would use a calculator and explain why.
- Discuss commonly occurring errors, such as misinterpreting values that represent money; for example, children may give an answer of £12.5 instead of £12.50 or interpret 12.5 on a calculator display as £12 and 5p. Ask children to match the correct numbers of notes and coins to the calculator display.
- When solving problems involving measures, make sure that children understand the need to ensure measures are in the same unit before entering calculations onto a calculator.
- Teach children, when they use a calculator, to record their calculations, together with the answers they obtain, at each stage in a multi-step calculation. Emphasise that, when using a calculator, recording the 'method' means recording the number sentences or the calculations involved.
- Encourage children to check whether each answer makes sense as they work through a problem. Children may need to consider whether it is appropriate to round the given answer up or down.
- Further guidance on the use of calculators in the teaching and learning of mathematics can be found within the mathematics planning area of the Primary Framework www.standards.dcsf.gov.uk/nationalstrategies/primary