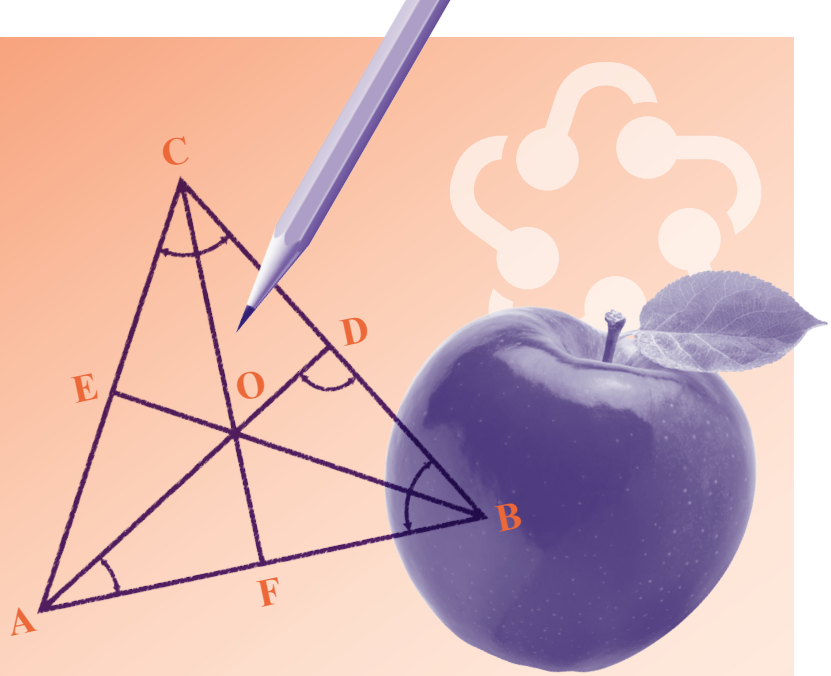
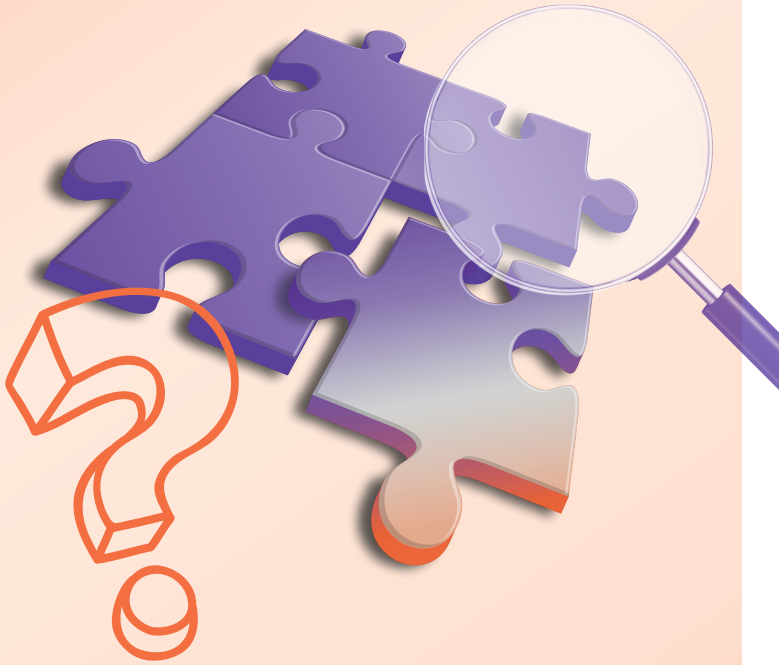
AQA
Realising potential

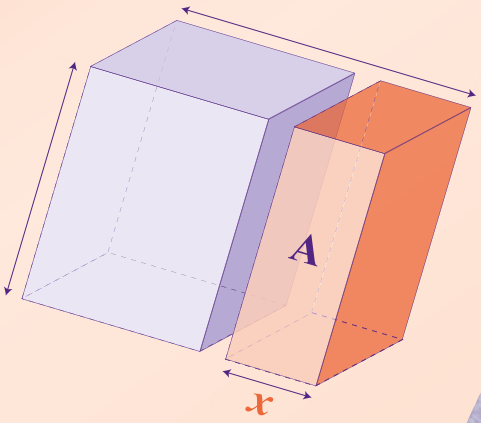


GCSE Maths Focus on:

Problem solving



Build on your students' assessment performance using our self-guided, modular training pack



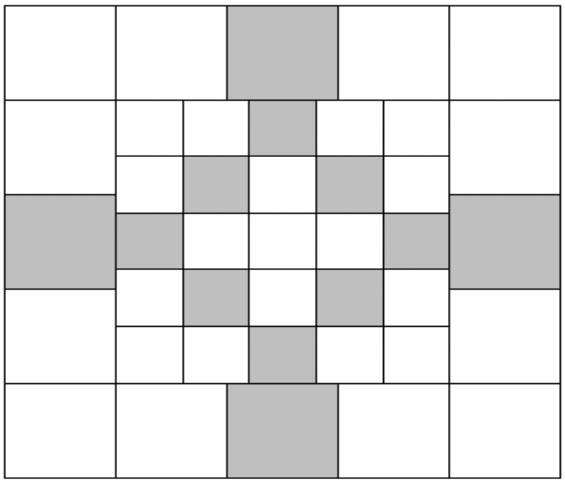
Activities booklet

Contents

Shaded squares

Activity 1

This diagram is made from 25 small squares and 16 large squares.



What percentage of the diagram is shaded?

Working out:

Answer:

The strategies

Activity 2

Complete the question provided to you (on screen) for each of the strategies. Can you think of other problems which could be approached using each strategy?

Strategy 1: Set out cases

Other problems which could be approached in this way:

Number	Problem
1	
2	

Strategy 2: Work Back

Other problems which could be approached in this way:

Number	Problem
1	
2	

Strategy 3: Finding an example to fit

Other problems which could be approached in this way:

Number	Problem
1	
2	

Strategy 4: Find key relationships

Other problems which could be approached in this way:

Number	Problem
1	
2	

Strategy 5: Find mathematical features

Other problems which could be approached in this way:

Number	Problem
1	
2	

Data rich problems (an additional problem type)

Other problems which could be approached in this way:

Number	Problem
1	
2	

Using the strategies

Activity 3

Working in groups, answer the questions within the table for each problem provided to you in the *Handout Booklet.*

Problem 1: Apples

Question	Answer
Which of the 5 strategies is most likely to be successful here?	
What method did you use to solve it?	
What level of demand is the problem as it stands?	
What method are your students likely to use?	
How might you use this problem in your teaching?	
How might you simplify or extend this problem?	

Problem 2: Box clever

Question	Answer
Which of the 5 strategies is most likely to be successful here?	
What method did you use to solve it?	
What level of demand is the problem as it stands?	
What method are your students likely to use?	
How might you use this problem in your teaching?	
How might you simplify or extend this problem?	

Problem 3: Bubble

Question	Answer
Which of the 5 strategies is most likely to be successful here?	
What method did you use to solve it?	
What level of demand is the problem as it stands?	
What method are your students likely to use?	
How might you use this problem in your teaching?	
How might you simplify or extend this problem?	

Problem 4: Dice

Question	Answer
Which of the 5 strategies is most likely to be successful here?	
What method did you use to solve it?	
What level of demand is the problem as it stands?	
What method are your students likely to use?	
How might you use this problem in your teaching?	
How might you simplify or extend this problem?	

Problem 5: Double Trouble

Question	Answer
Which of the 5 strategies is most likely to be successful here?	
What method did you use to solve it?	
What level of demand is the problem as it stands?	
What method are your students likely to use?	
How might you use this problem in your teaching?	
How might you simplify or extend this problem?	

Problem 6: Equal points

Question	Answer
Which of the 5 strategies is most likely to be successful here?	
What method did you use to solve it?	
What level of demand is the problem as it stands?	
What method are your students likely to use?	
How might you use this problem in your teaching?	
How might you simplify or extend this problem?	

Problem 7: Javelin B

Question	Answer
Which of the 5 strategies is most likely to be successful here?	
What method did you use to solve it?	
What level of demand is the problem as it stands?	
What method are your students likely to use?	
How might you use this problem in your teaching?	
How might you simplify or extend this problem?	

Problem 8: Meet

Question	Answer
Which of the 5 strategies is most likely to be successful here?	
What method did you use to solve it?	
What level of demand is the problem as it stands?	
What method are your students likely to use?	
How might you use this problem in your teaching?	
How might you simplify or extend this problem?	

Problem 9: Repeater

Question	Answer
Which of the 5 strategies is most likely to be successful here?	
What method did you use to solve it?	
What level of demand is the problem as it stands?	
What method are your students likely to use?	
How might you use this problem in your teaching?	
How might you simplify or extend this problem?	

Problem 10: Spinners

Question	Answer
Which of the 5 strategies is most likely to be successful here?	
What method did you use to solve it?	
What level of demand is the problem as it stands?	
What method are your students likely to use?	
How might you use this problem in your teaching?	
How might you simplify or extend this problem?	

Notes

Notes

Contact us

T: 0161 957 3852
E: maths@aqa.org.uk

aqa.org.uk