



#LIFEworkbalance

We have started a #LIFEworkbalance campaign and we need your help to complete our LIFE/work balance survey.

We hope to publish the results soon, so please give 15 minutes of your time to help us get a true picture of school life.

Want to be a part of this campaign? Take the [survey](#) on our website and share it with your colleagues!

Year 5 – Autumn Block 5 – Perimeter and Area – Area of Irregular Shapes

About This Resource:

This PowerPoint has been designed to support your teaching of this small step. It includes a starter activity and an example of each question from the Varied Fluency and Reasoning and Problem Solving resources also provided in this pack. You can choose to work through all examples provided or a selection of them depending on the needs of your class.

Teaching note: The answers given for this resource are based on counting whole squares (or near whole squares) and then matching part squares to make whole squares. These have been identified on the answer slides. Your pupils may have different answers to those given by us, but if they can explain how they have reached their answer, accept it as correct.

National Curriculum Objectives:

Mathematics Year 5: (5M7b) [Calculate and compare the area of rectangles \(including squares\), and including using standard units, square centimetres \(cm²\) and square metres \(m²\) and estimate the area of irregular shapes](#)

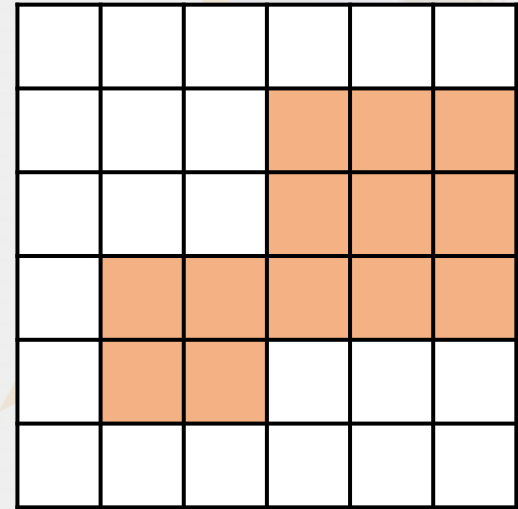
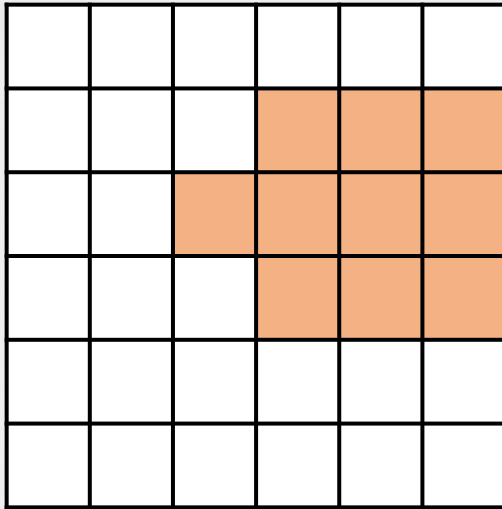
More [Year 5 Perimeter and Area](#) resources.

Did you like this resource? Don't forget to [review](#) it on our website.

Step 5: Area of Irregular Shapes

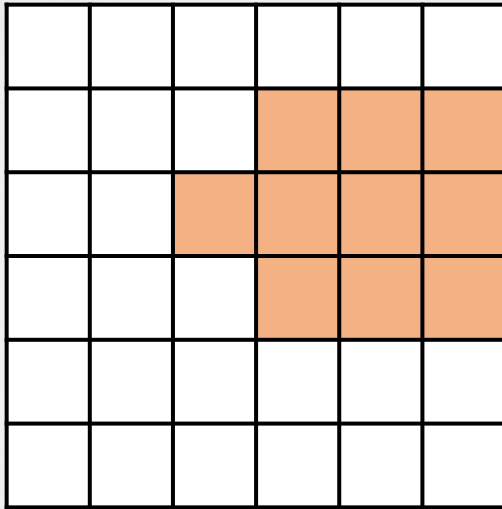
Introduction

How many squares are shaded on each grid?

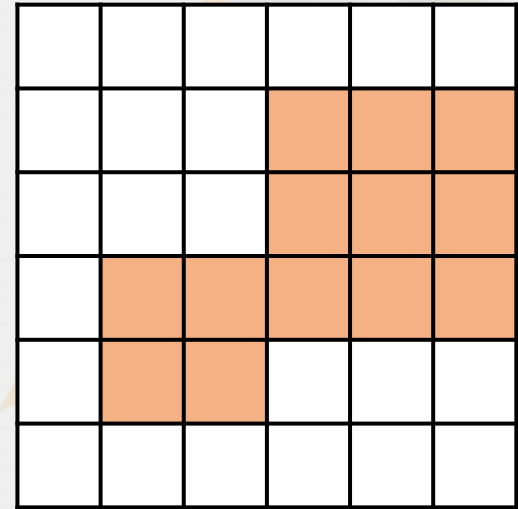


Introduction

How many squares are shaded on each grid?



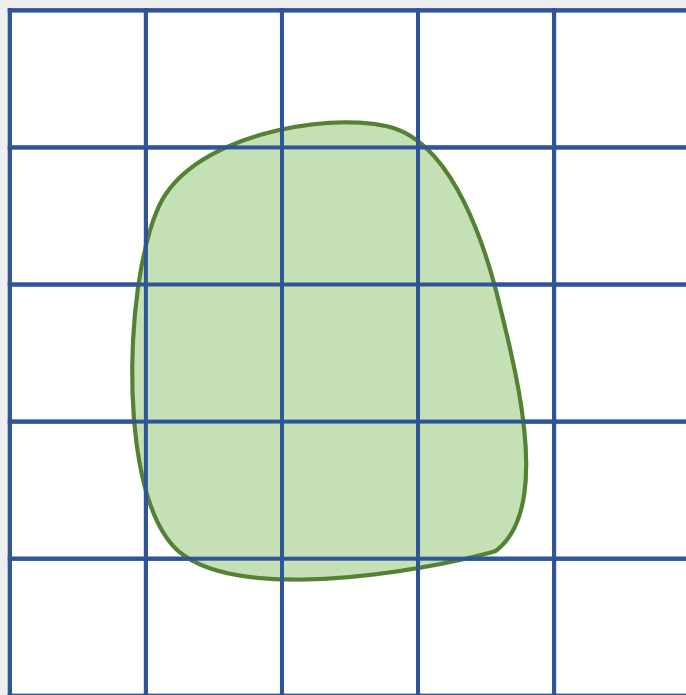
10



13

Varied Fluency 1

If each square represents 2m^2 , which is the best approximation of the area of this shape?



Not to scale

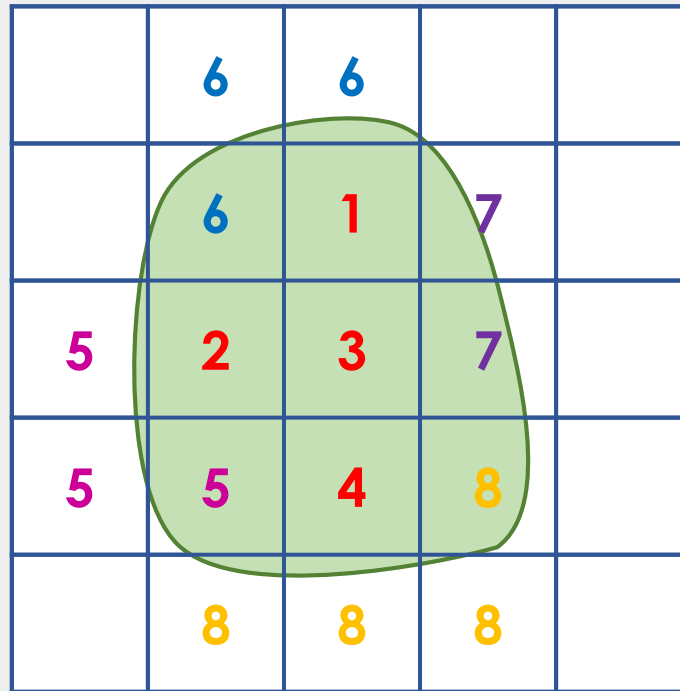
A = 8m^2

B = 14m^2

C = 16m^2

Varied Fluency 1

If each square represents 2m^2 , which is the best approximation of the area of this shape?



Not to scale

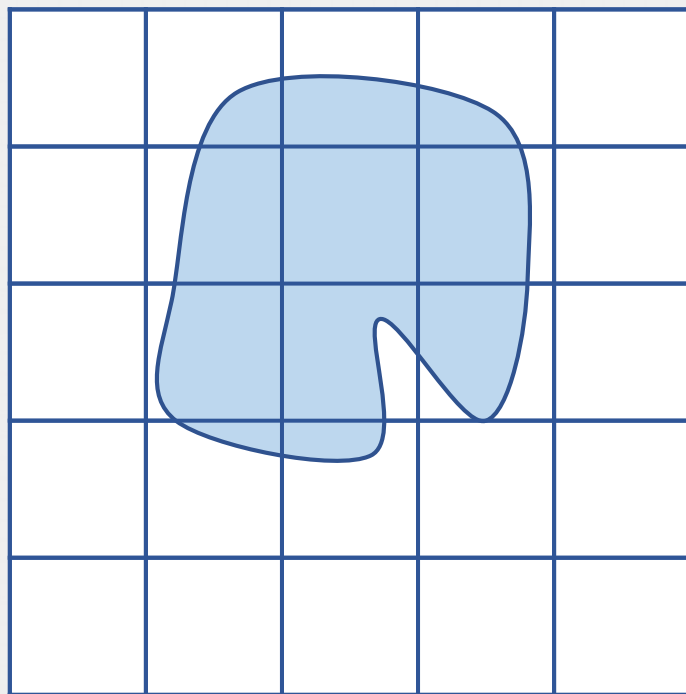
A = 8m^2

B = 14m^2

C = 16m^2

Varied Fluency 2

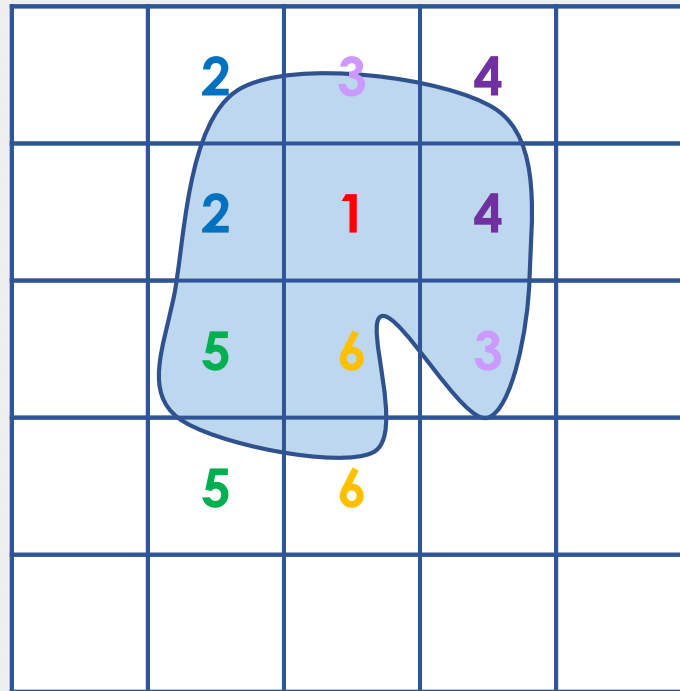
True or false? If each square represents 4cm^2 , this shape has an approximate area of 40cm^2 .



Not to scale

Varied Fluency 2

True or false? If each square represents 4cm^2 , this shape has an approximate area of 40cm^2 .

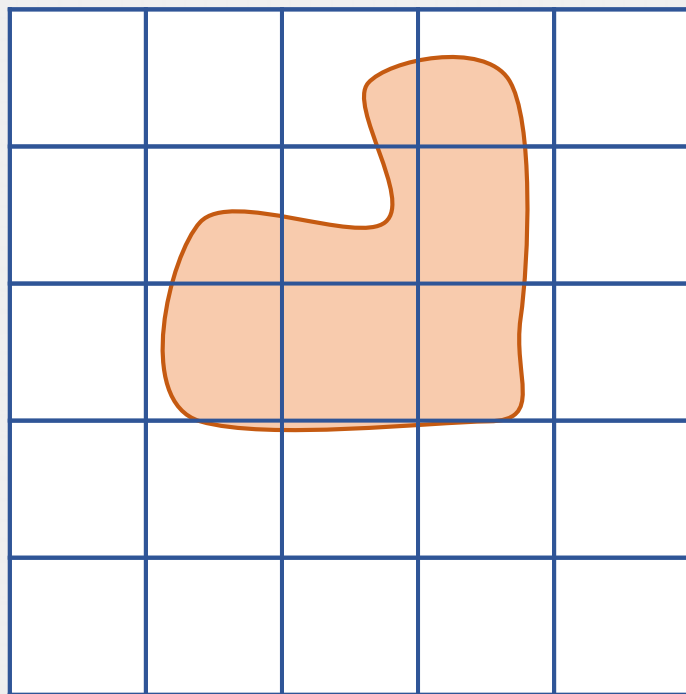


Not to scale

False. The shape has an approximate area of 24cm^2 .

Varied Fluency 3

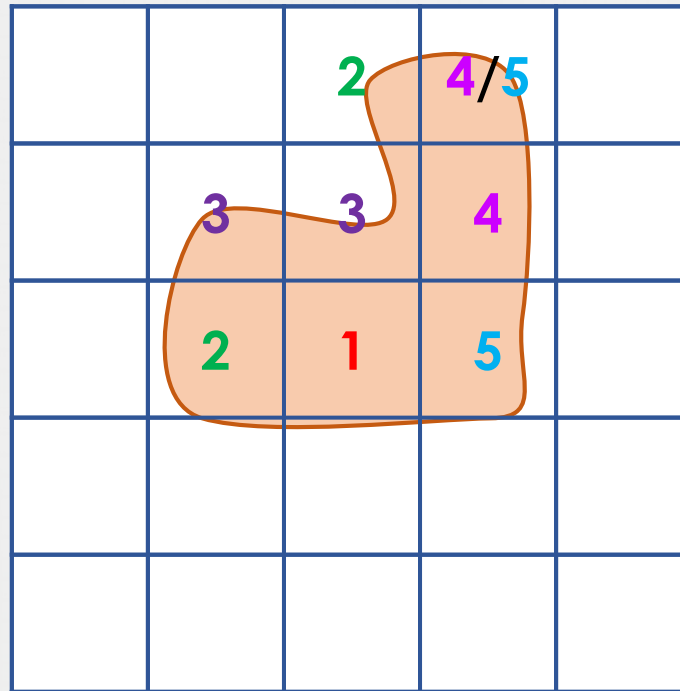
Each square represents 3m^2 . Is the approximate area of this shape more or less than 22m^2 ?



Not to scale

Varied Fluency 3

Each square represents 3m^2 . Is the approximate area of this shape more or less than 22m^2 ?

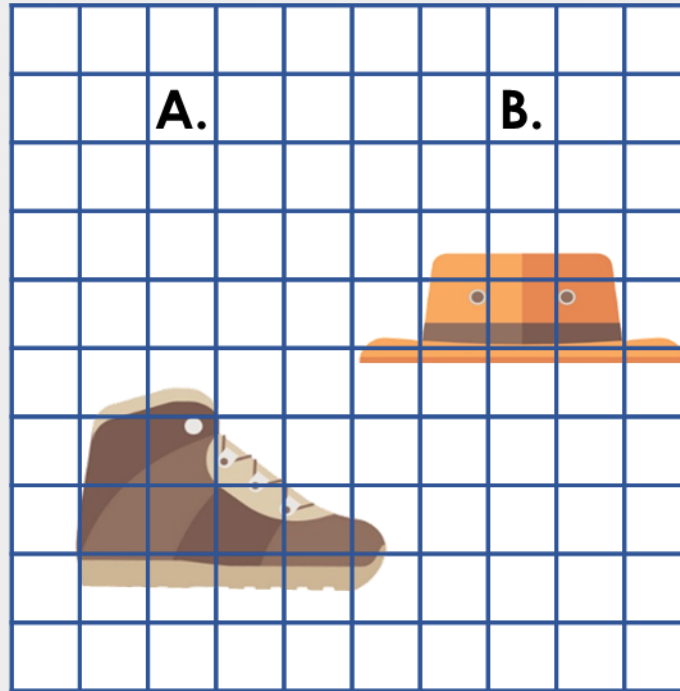


Not to scale

Less than 22m^2
Approximate area = 15m^2

Problem Solving 1

Each square represents 4cm^2 . How many cm^2 would you have to add to the smaller shape to make it approximately the same size as the larger shape?

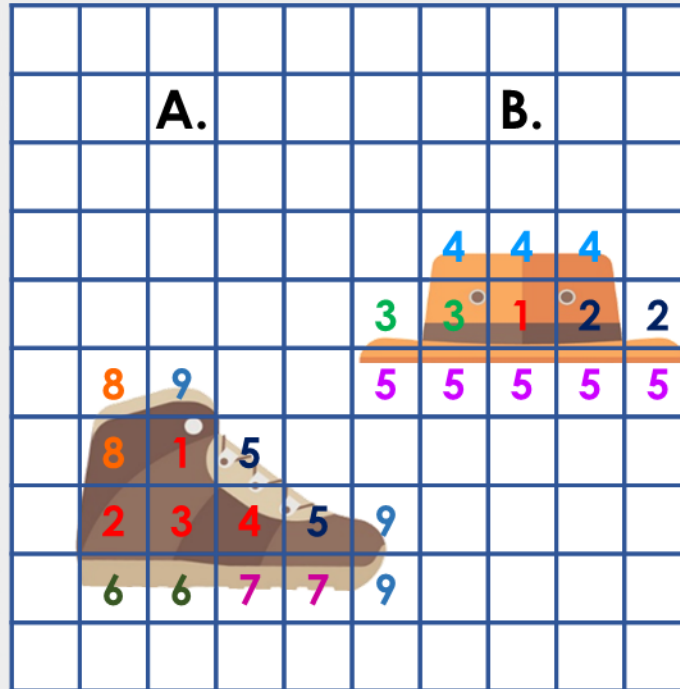


Not to scale

Problem Solving 1

Each square represents 4cm^2 . How many cm^2 would you have to add to the smaller shape to make it approximately the same size as the larger shape?

Shape A
 $9 \times 4\text{cm}^2 = 36\text{cm}^2$



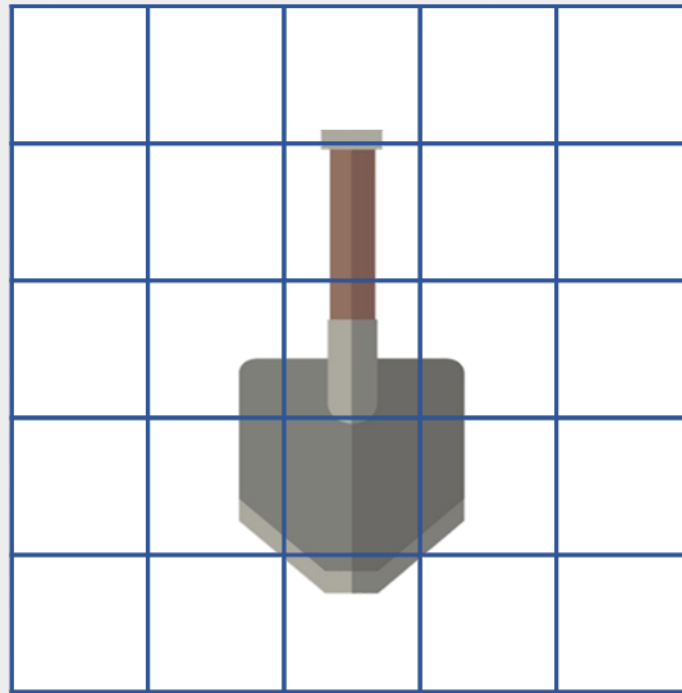
Shape B
 $5 \times 4\text{cm}^2 = 20\text{cm}^2$

Not to scale

Approximately 16cm^2

Reasoning 1

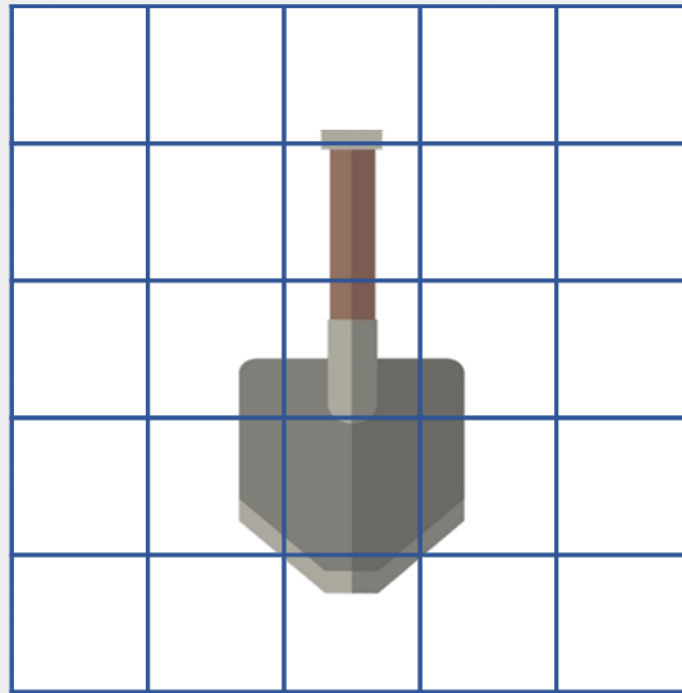
Each square represents 5cm^2 . Avijeet estimates the shape's area to be 20cm^2 . Is he correct? Explain your answer.



Not to scale

Reasoning 1

Each square represents 5cm^2 . Avijeet estimates the shape's area to be 20cm^2 . Is he correct? Explain your answer.

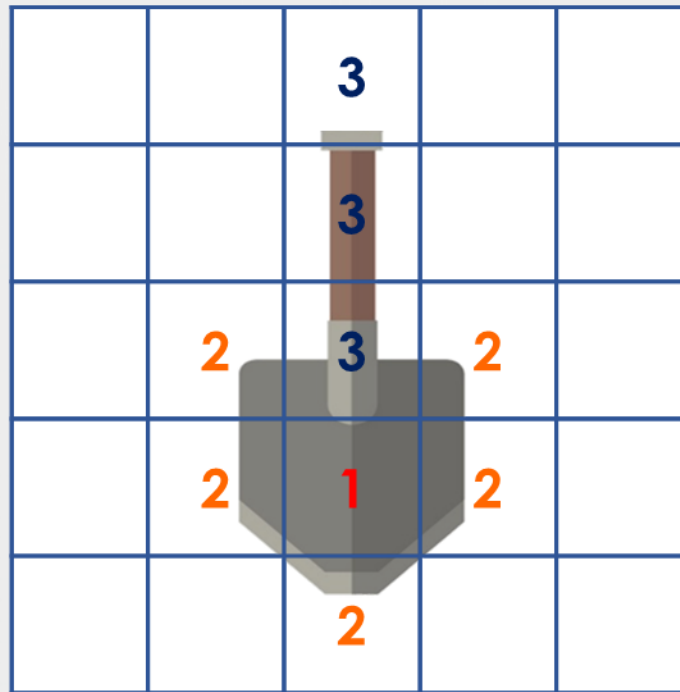


Not to scale

Avijeet is incorrect, because...

Reasoning 1

Each square represents 5cm^2 . Avijeet estimates the shape's area to be 20cm^2 . Is he correct? Explain your answer.

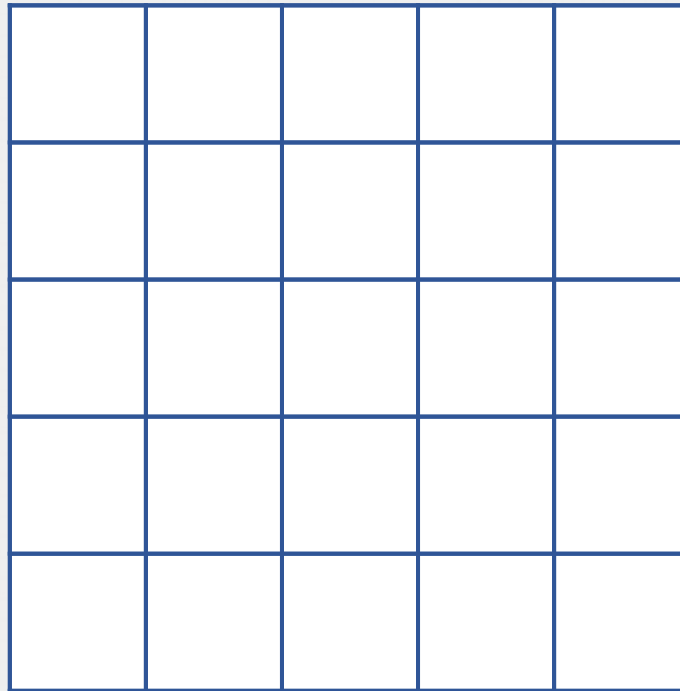


Not to scale

Avijeet is incorrect, because the shape covers approximately 3 squares. $3 \times 5\text{cm}^2 = 15\text{cm}^2$

Problem Solving 2

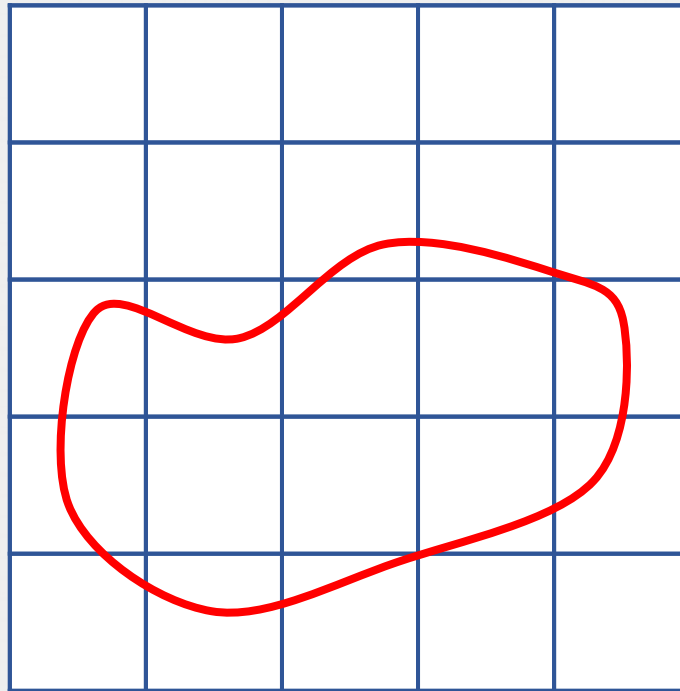
Each square represents 2cm^2 . Draw an irregular shape with an approximate area of 16cm^2 on this grid.



Not to scale

Problem Solving 2

Each square represents 2cm^2 . Draw an irregular shape with an approximate area of 16cm^2 on this grid.



Not to scale

Various answers (covering 8 squares), such as the one above.