Discussion Problems
Step 5: Area of Irregular Shapes

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. Your pupils may have different answers to those provided, but if they can explain how they have reached their answer then 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

About this resource:

This resource has been designed for pupils who understand the concepts within this step. It provides pupils with more opportunities to enhance their reasoning and problem solving skills through more challenging problems. Pupils can work in pairs or small groups to discuss with each other about how best to tackle the problem, as there is often more than one answer or more than one way to work through the problem.

There may be various answers for each problem. Where this is the case, we have provided one example answer to guide discussion.

We recommend self or peer marking using the answer page provided to promote discussion and self-correction.
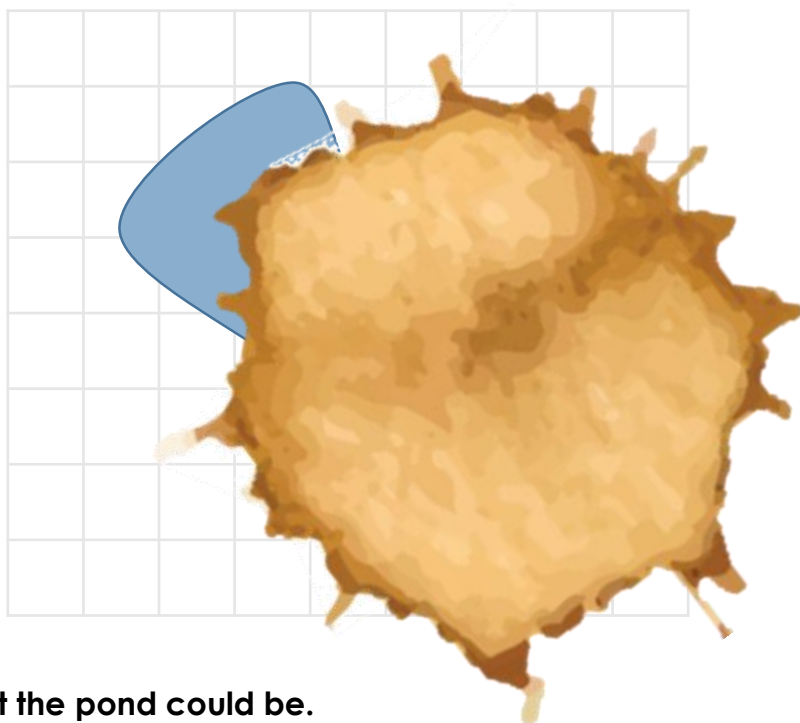
More Year 5 Perimeter and Area resources.

Did you like this resource? Don't forget to review it on our website.

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Area of Irregular Shapes

1. Mr Jones, the gardener, is plotting the shape of a new pond but he has spilt tea over his plan! He says,
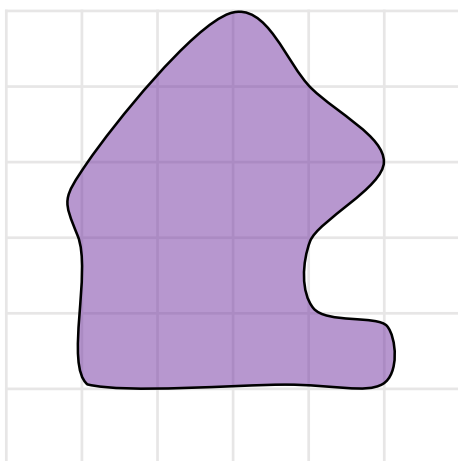
> I know the area of the pond was approximately 30m^2.

Each square represents 1.5m^2.

Investigate the irregular shape that the pond could be.

DP

2. Explore the different ways to make the inequality statement true by creating another irregular shape.

Squares represent 2cm^2

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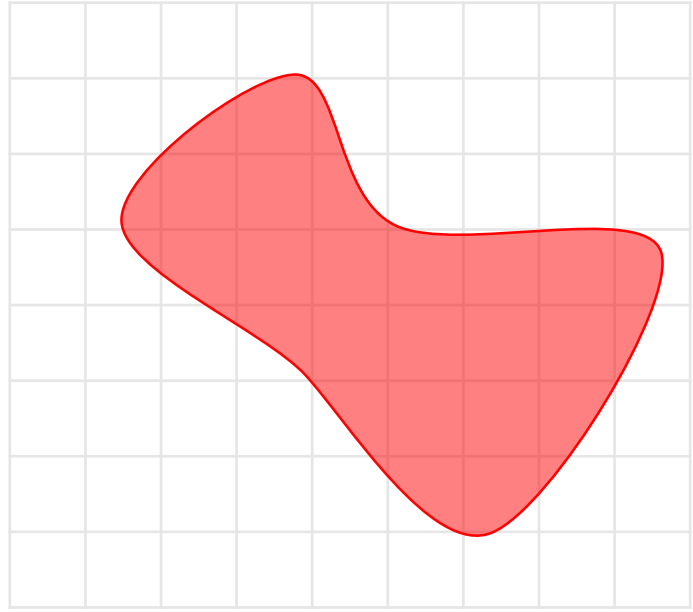Squares represent 1.5cm^2

DP

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Area of Irregular Shapes

1. Mr Jones, the gardener, is plotting the shape of a new pond but he has spilt tea over his plan! He says,

> I know the area of the pond was approximately 30m².

Each square represents 1.5m².

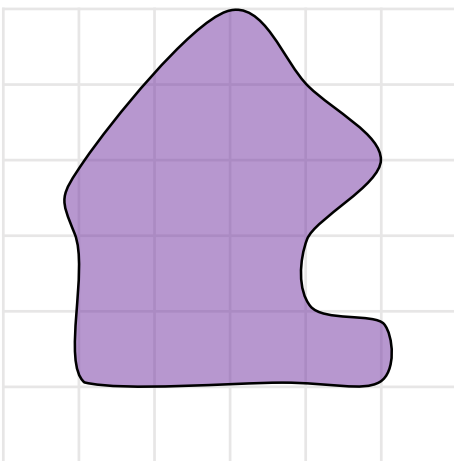**Investigate the irregular shape that the pond could be.**
Various answers, an example of a shape with an approximate area of 30m² is shown above.

DP

2. Explore the different ways to make the inequality statement true by creating another irregular shape.

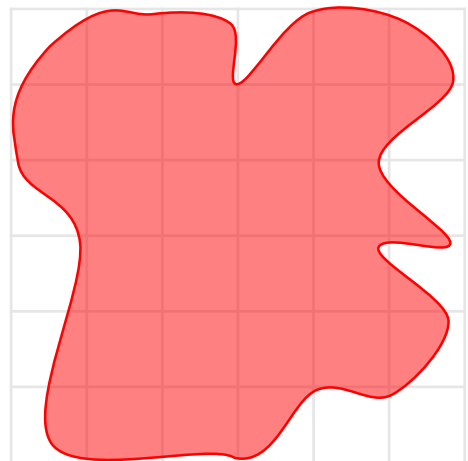**Various answers, for example:**

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Squares represent 2cm²
Approximate area = 29cm²

Squares represent 1.5cm²
Approximate area = 39cm²

DP

Discussion Problems – Area of Irregular Shapes ANSWERS