

## Y5 Mastery Questions – Area 2

- Estimate the area of the pond.  
Each square =  $1 \text{ m}^2$



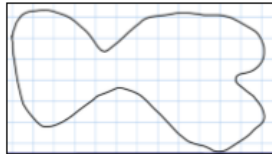
Ron's answer is 4 whole squares and 11 parts.  
Is this an acceptable answer?  
What can we do with the parts to find an approximate answer?

- If all of the squares are 1 cm in length, which shape has the greatest area?



Is the red shape the greatest because it fills more squares?  
Why or why not?  
What is the same about each image? What is different about the images?

- Each square is  $\_\_\_ \text{ m}^2$   
Work out the approximate area of the shape.



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Draw a circle on  $1 \text{ cm}^2$  paper. What is the estimated area?

Can you draw a circle that has area approximately  $20 \text{ cm}^2$ ?



If each square represents  $3 \text{ m}^2$ , what is the approximate area of:

- The lake
- The bunkers
- The fairway
- The rough
- Tree/forest area

Can you construct a 'Pirate Island' to be used as part of a treasure map for a new game? Each square represents  $4 \text{ m}^2$ .

The island must include the following features and be of the given approximate measure:

- Circular Island  $180 \text{ m}^2$
- Oval Lake  $58 \text{ m}^2$
- Forests with a total area of  $63 \text{ m}^2$  (can be split over more than one space)
- Beaches with a total area of  $92 \text{ m}^2$  (can be split over more than one space)
- Mountains with a total area of  $57 \text{ m}^2$
- Rocky coastline with total area of  $25 \text{ m}^2$

Draw a circle on 1 cm<sup>2</sup> paper. What is the estimated area?

Can you draw a circle that has area approximately 20 cm<sup>2</sup>?



If each square represents 3 m<sup>2</sup>, what is the approximate area of:

- The lake
- The bunkers
- The fairway
- The rough
- Tree/forest area