

# Measurements

Year 9 / S3

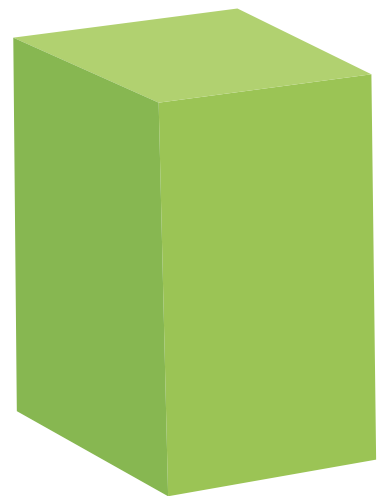
## Activity 1

Estimate the heights of these buildings then research their actual heights. Calculate the difference.

Building	Estimated Height	Actual Height	Difference
Eiffel Tower			
The Shard			
Taj Mahal			
Empire State Building			
Colosseum			
Great Pyramid of Giza			
Sydney Opera House			
Tower Bridge			

## Activity 2

Using just one piece of A4 paper create a cuboid with the greatest possible volume. How can you convince someone that this is the greatest volume?



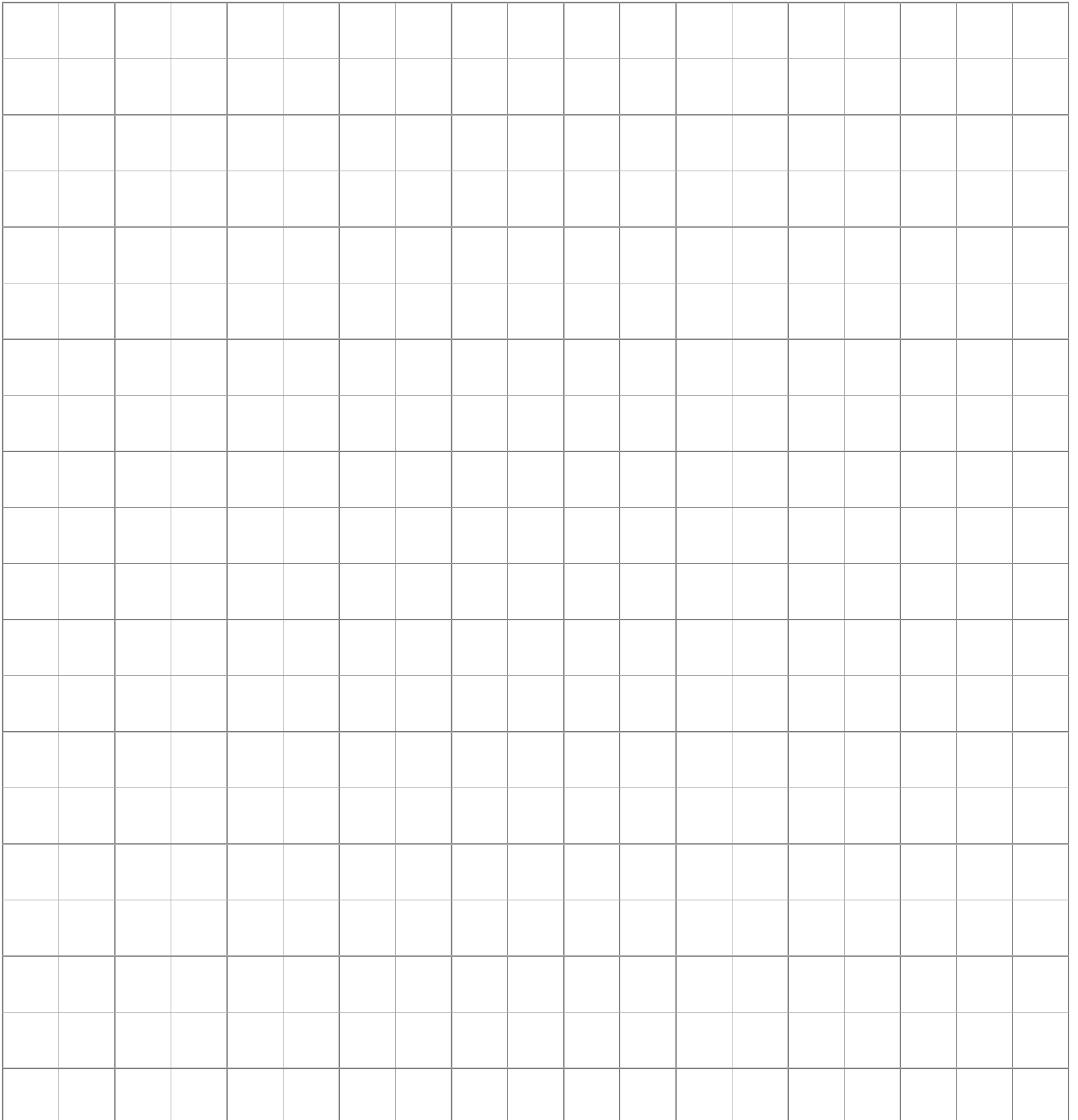
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## Activity 3

Draw 5 right angled triangles each which have two sides of the length 1cm, 2cm, 3cm, 4cm, and 5cm.

- What are their areas?
- Is there a link between the amount you enlarge the length by and the increased area?
- What would the area of the 6th and 11th triangle in this pattern be?



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## Super Challenge

Can you create a formula for the area of the  $n$ th triangle?

