

MEASUREMENTS



1

**Challenge One**

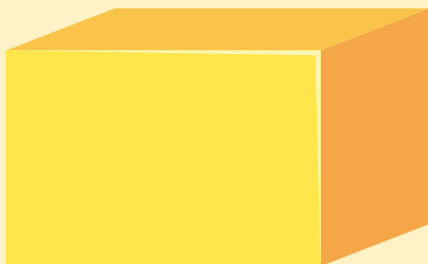
Estimate the heights of these buildings then research their actual heights. Calculate the difference?

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			

2

**Challenge Two**

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?



MEASUREMENTS

3.

**Challenge Three**

Draw equilateral, right angled triangles with side lengths of 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?

MEASUREMENTS



**Super Challenge**

Can you create a formula for the area of the nth triangle?