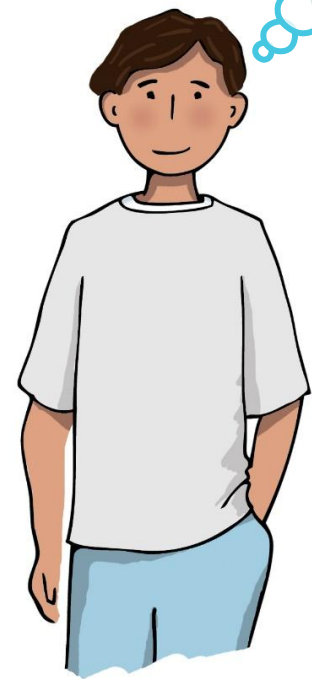


# **Angles in Polygons**

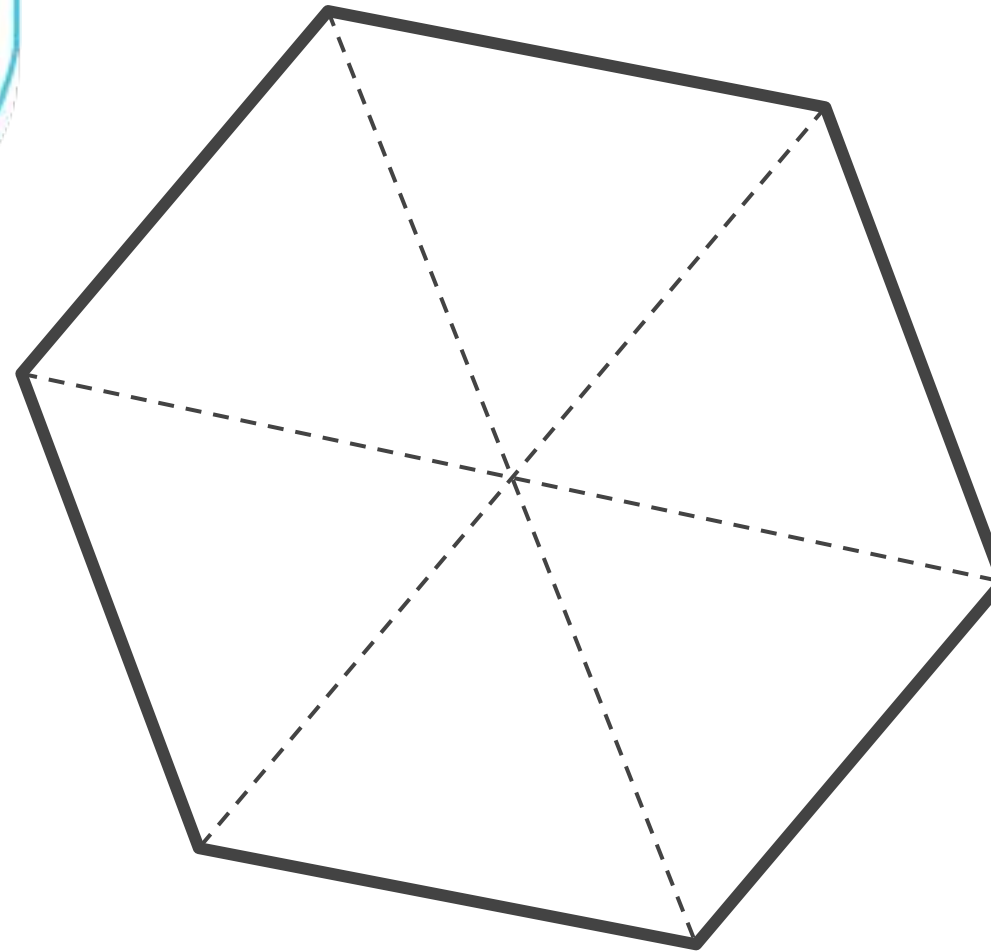
Downloadable Resource –  
Generalising angles in polygons  
(Part II)



# Try this



I split my shape in 6 triangles, so the total of the internal angles is  $6 \times 180^\circ = 1080^\circ$



What is Antoni's error?

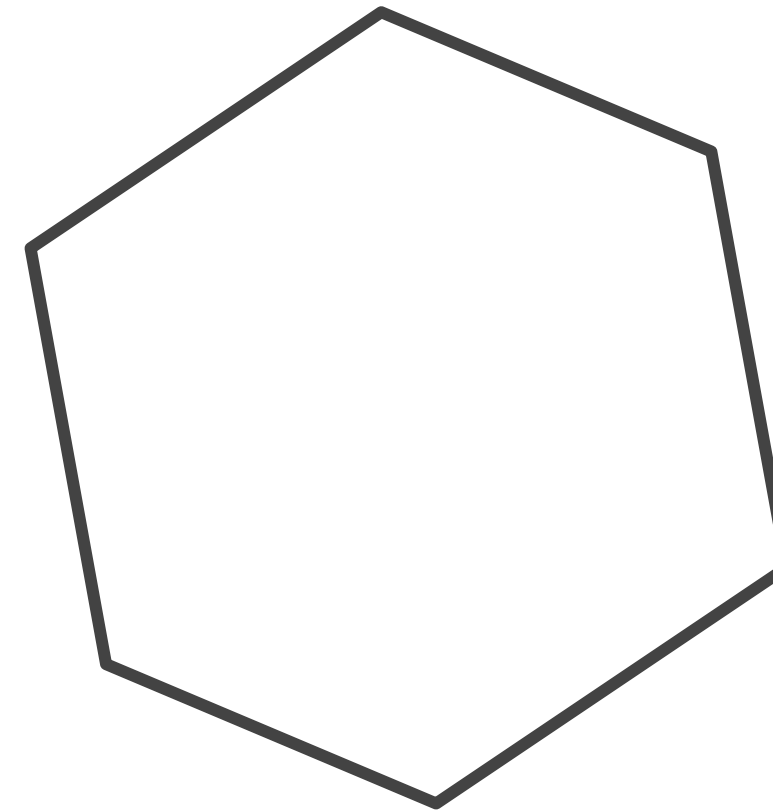
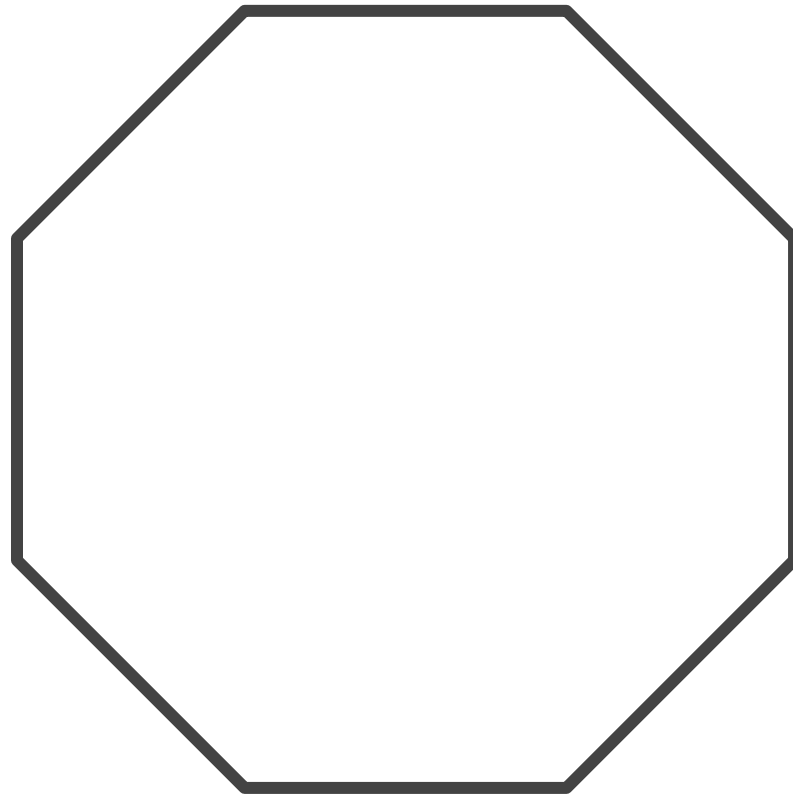
What would you have done differently?

Can you calculate the sum of the internal angles of this hexagon?



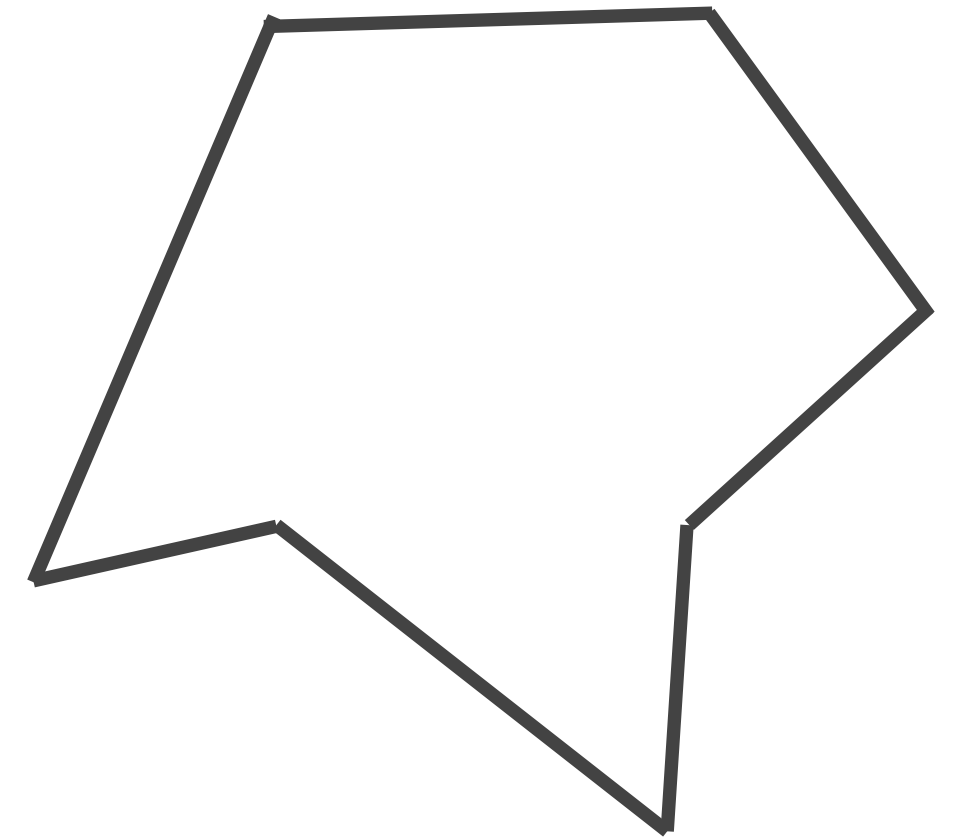
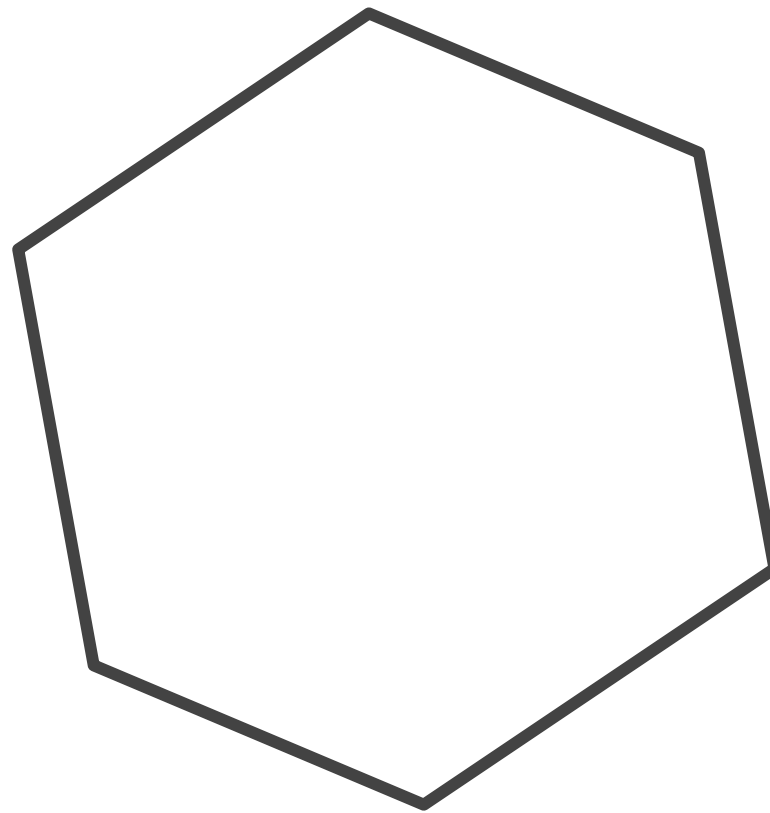
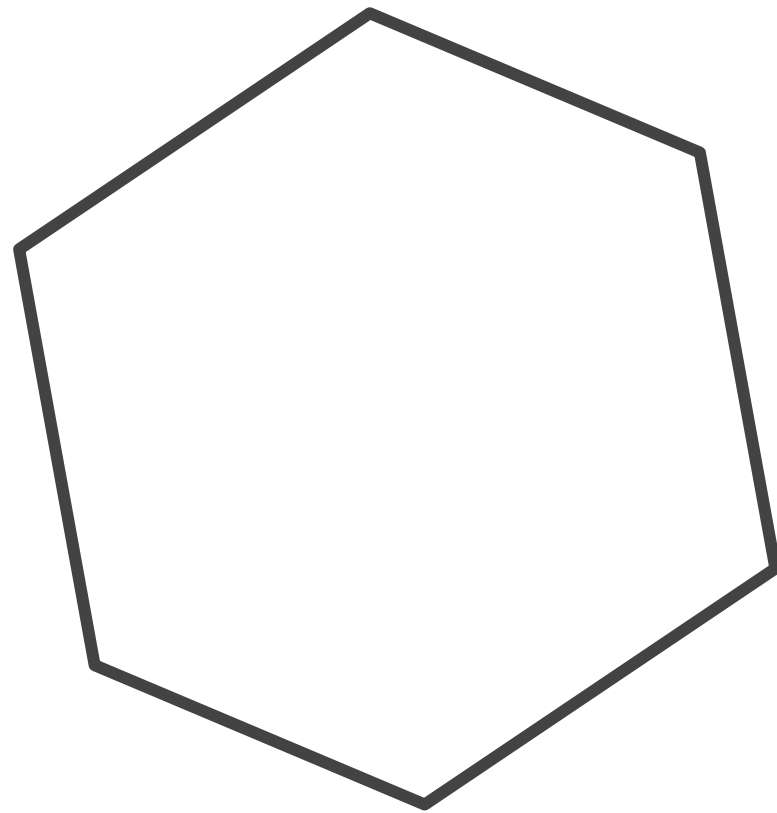
# Connect

Let's continue this idea further...



# Independent Task

Split these shapes and state what the sum of their interior angles will be.



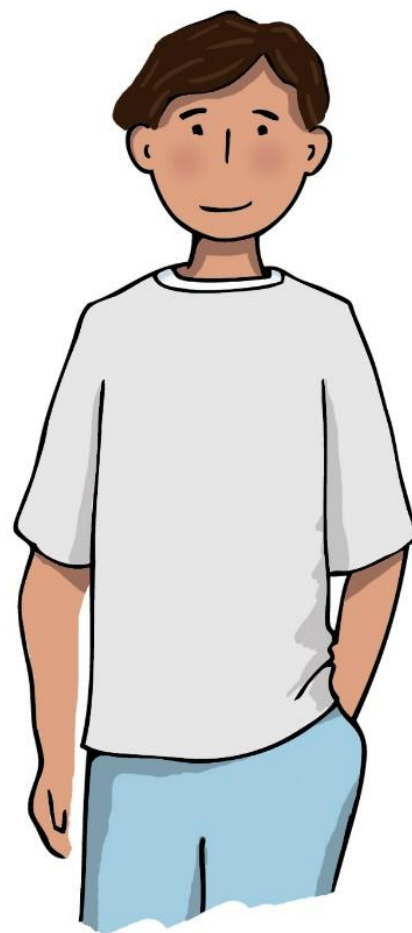
# Explore

In relation to what we have learnt, who is right?

$$180 \times n - 360$$



$$(n-2) \times 180$$



If I draw a triangle from the centre to each side, it's 180 multiplied by the number of sides, then subtract 360 degrees in the centre.



There will be 2 less triangles than the number of sides, so multiply that by 180.

