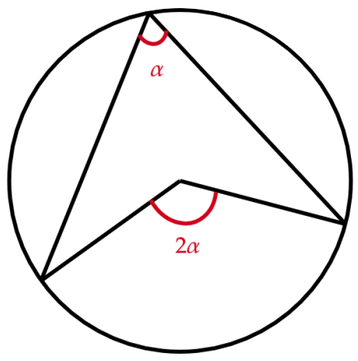
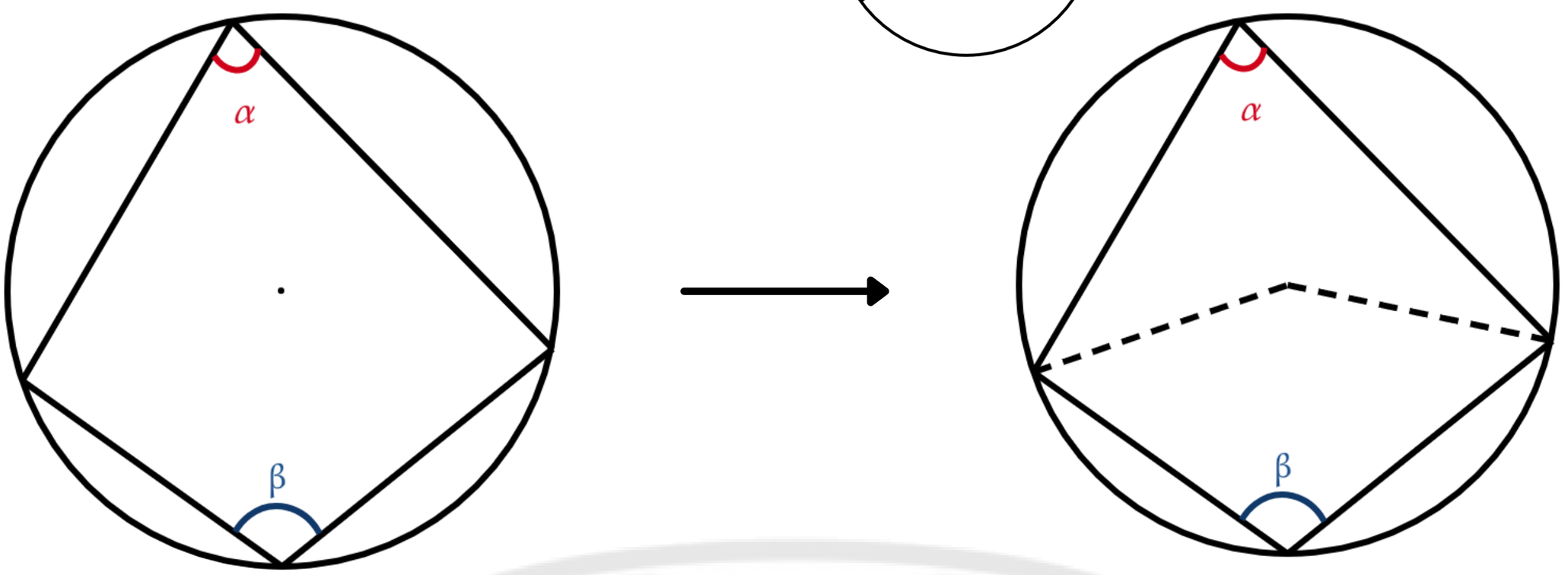
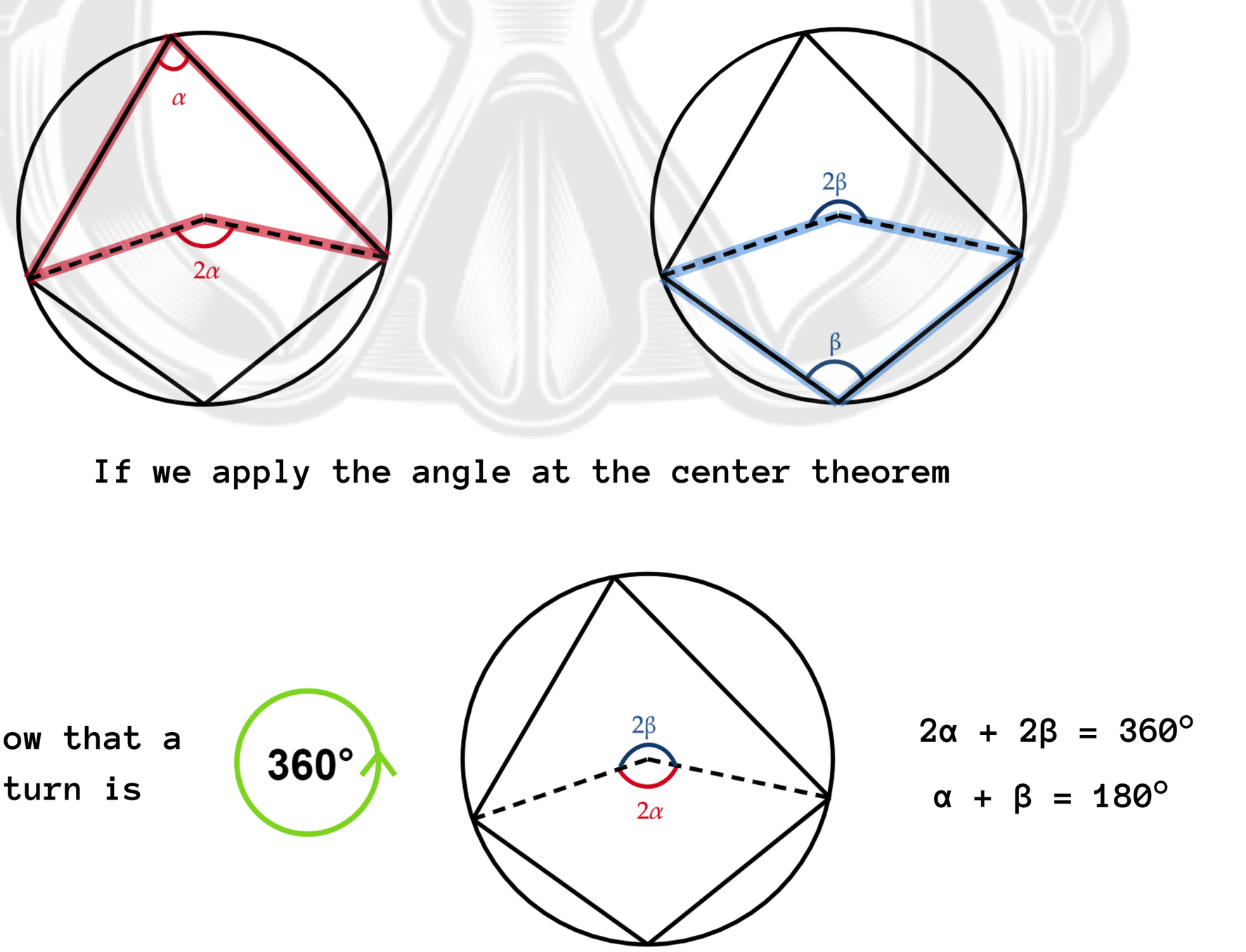
Why do opposite angles (α and β) in a cyclic cuadrilateral add up to 180°?

Remember that:





We are going to add 2 segments that go from the center to the circumference (dashed lines).



If we apply the angle at the center theorem

But we know that a complete turn is

$2\alpha + 2\beta = 360°$

$\alpha + \beta = 180°$

∴ Opposite angles in a cyclic quadilateral add up to 180°