Sum of interior angles in a quadrilateral

Consider the quadrilateral ABCD below, with interior angles x, y, z and t

Axxy BC

We draw a line between opposite summits A and C, which splits the quadrilateral into two triangles.



1. Remembering that the 3 interior angles of a triangle add up to 180 degrees, calculate:

- a. n+y+o =
- b. m + p + t =
- 2. Calculate the sum (n + y + o + p + t + m)

3. Recognising that x = m + n and that z = p + o, what can you conclude for the sum (x + y + z + t) of the 4 interior angles of ANY quadrilateral?