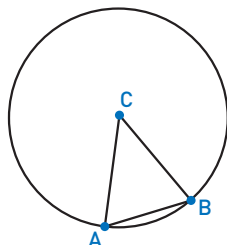


**YOU & MATHS** A robust isosceles triangle

- a.** Use dynamic geometry software to construct an isosceles triangle (make sure it remains an isosceles triangle whenever you drag a vertex!).
- b.** Describe how you made the construction.
- c.** Do two of its angles remain congruent as you drag it? Explain why or why not.

- a.** A possible figure is shown below.



- b.** In the case shown the congruent sides are obtained as radii of a same circle.
- c.** If you mark the angles of the triangle, you can see that two of them remain congruent as the triangle's vertices are dragged. This is because in an isosceles triangle you have proved (in the chapter) that the angles between the congruent sides and the third side are congruent. This of course holds for any isosceles triangle.