Thales property for English pupils

Student worksheet

4e

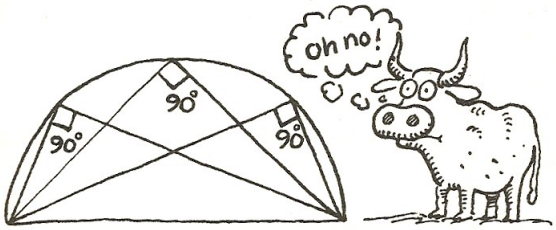
Student: ...

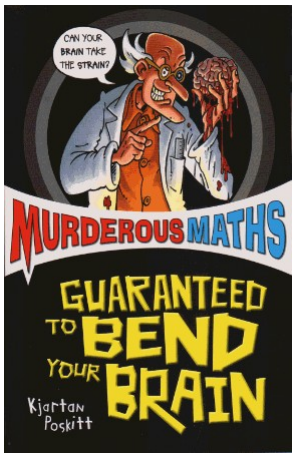
Author : OSTENNE Emmanuel

I A story telling

From "Murderous Maths" by Kjartan Poskitt in The Knowledge book serie (1997) :

*"The hard boys of maths : **Thales***
In ancient Greece maths was as popular as pop music or sport is to us today. There was a lot of hot competition to prove and develop basic theories and around 550 BC Thales, an olive-oil tycoon, became a big star by laying down some of the absolute fundamentals. Does this mean he was a bit on the boring side ? Not really ... to celebrate one of his discoveries, he went out and sacrificed a bull to the gods ! The poor bull lost out after Thales found that any angle in a semicircle (see picture) is always a right angle."





http://en.wikipedia.org/wiki/Murderous_Maths

1. Translate the property in French :
   ...
2. Give another translation, nearer from our way of writing properties in mathematics lessons :
   ...
3. Using Tracenpoche in English make a construction showing this property seems to be right.
   Some help ? Maybe useful buttons are  .
4. Paste here after a copy of the rendered picture and a copy of the script :

Picture	Script

II A proof

Let's have a circle which diameter is a segment [AB]. C is a point on this circle.

1. Using a new sheet in Tracenpoche in English make this construction
2. Add the point O center of this circle and call D the symmetric of C respect with O.
3. Draw the quadrilateral ACBD.
4. Paste here after a copy of the rendered picture and a copy of the script :

Picture	Script

6. Look at the "Special Quadrilaterals" classification.
   What is the nature of ACBD ?
7. Justify your answer, in English or in French.
8. Deduce the nature of the ABC triangle.