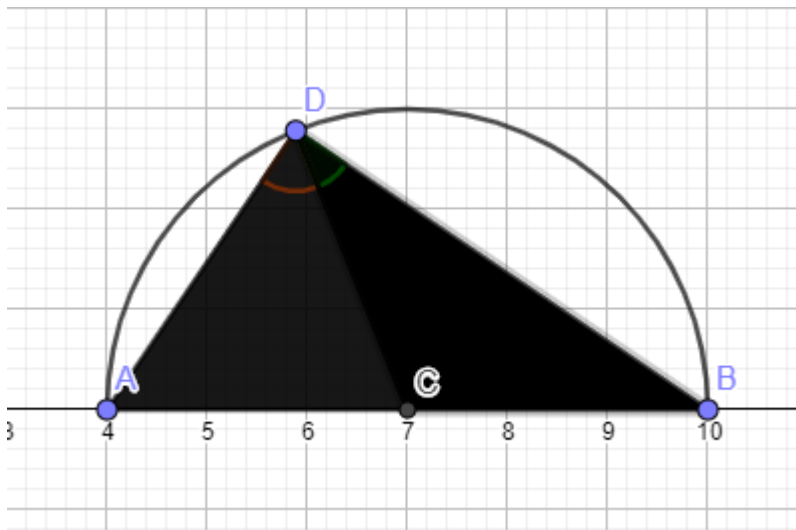


**ACCORDING TO THE THALES' THEOREM NO MATTER D IS LOCATED ON A CIRCUMFERENCE WITH DIAMETER AB, THE ANGLE ADB WILL ALWAYS BE A RIGHT ANGLE.**

Tasks

1. Proof without words.

Construct a triangle ADB, as in the picture, with AB diameter of the circumference or semi circumference and D located on it. Animate the point D. Use the Algebra Command  $a = \text{Angle}(\langle \text{point} \rangle, \langle \text{vertex} \rangle, \langle \text{point} \rangle)$  to show the value of the angle.



<https://www.geogebra.org/classic/qnghaqvd>

2. Divide the two legs of the right triangle into equal parts with the GeoGebra Command Sequence  $(i/n * A + (n-i)/n * B, i, 0, n)$  and connect the points crosswise, apply the following command Sequence  $(\text{Segment}(\text{Element}(\text{list1}, i), \text{Element}(\text{list2}, i)), i, 1, n+1)$  to connect the Cross points.

<https://www.geogebra.org/classic/vqcis9am>

3. Create an art work using as a start task 1 and task2.
4. Use the Triangle Sum Theorem to proof ADB right triangle in D vertex.

<https://www.geogebra.org/classic/vbvuarh>