PROBLEM OF THE WEEK #10
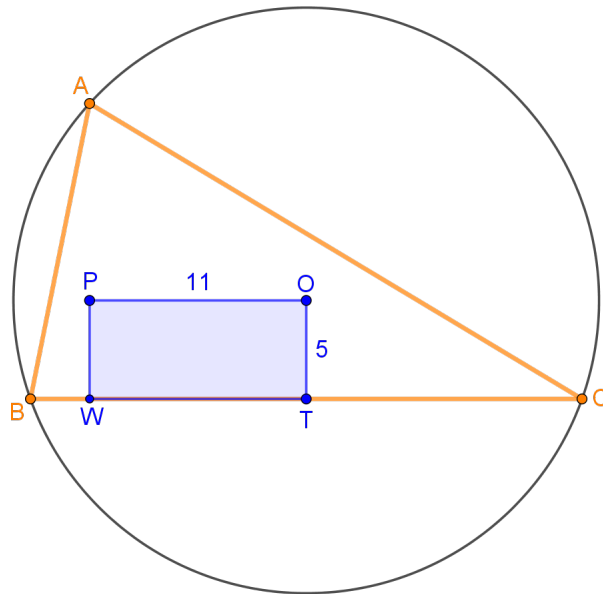
(Fall 2020)

Let A, B, and C be three points on a circle with center O. Let T be the midpoint of BC, and let W be the foot of the altitude from A.

Suppose that the three altitudes intersect at P and $POTW$ is a rectangle with sides $OP = 11$ and $OT = 5$. Find the length of BC.

[Please fully explain your answer.]

Email your solution to `kwonmi@uwplatt.edu` by 4:00 P.M. on Wednesday, November 25, 2020.

Every week, the best solution submitted earns a \$10 Platteville gift certificate; the top scorer each semester also wins a cash award. Good luck!

You can always see the Problem of the Week (and complete rules) online at:

`http://uwpmath.weebly.com/`