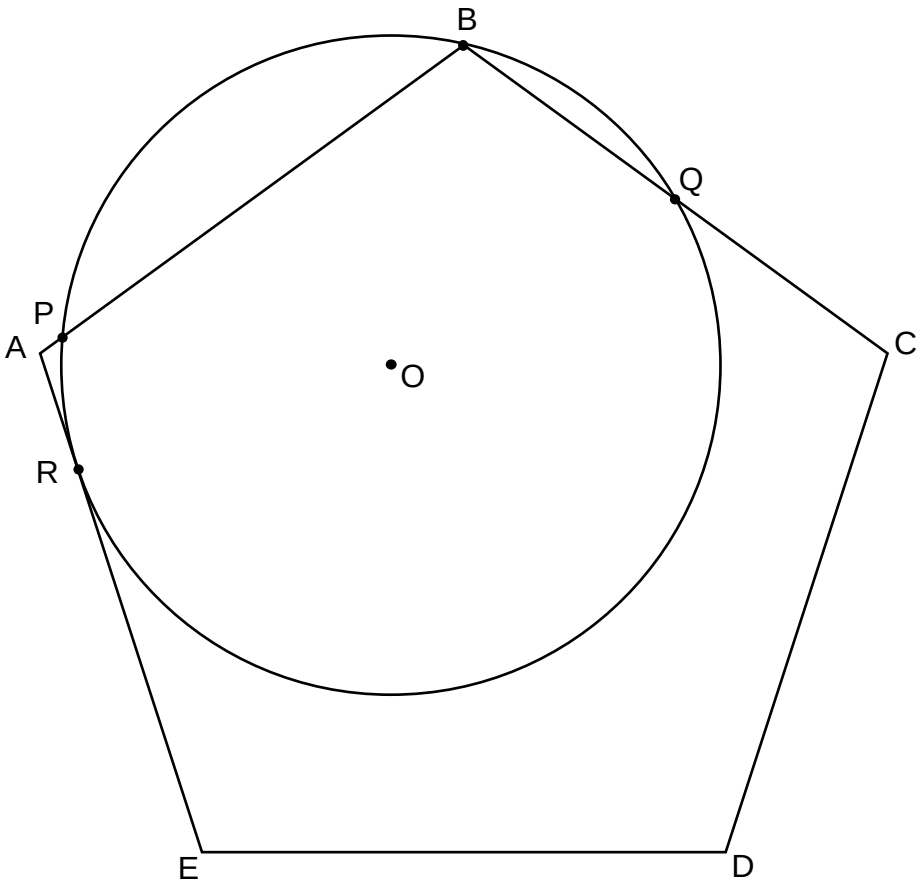
Spicy Question #47

NO Calculator

ABCDE is a regular pentagon.

The points P, B, Q and R lie on the circumference of a circle with centre O, radius r.

The line AE is the tangent to the circle at point R.



Angle BQR = 4 × Angle POR

$\frac{AB}{OR} = k\sqrt{2}$ where k is a constant.

Find the **exact** value of k. Give your answer in terms of trigonometric functions.

SUBMISSION DEADLINE 25/2/23 – 7PM

Video Solution

All submissions to be emailed to 1stclassmaths@gmail.com

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