



**Question:**  
Find angle P

**Answer:**  
50°

### Ours

- ✓ Given that PA and PB are tangents to circle O at points A and B respectively, we can conclude that OA is perpendicular to AP and OB is perpendicular to BP. Therefore,  $\angle OAP = \angle OBP = 90^\circ$
- ✓ Since  $\angle ACB = 65^\circ$ , we have  $\angle AOB = 2\angle ACB = 130^\circ$ .
- ✓ Using the fact that the sum of angles in a quadrilateral is  $360^\circ$ , we can find  $\angle APB$ :  $\angle APB = 360^\circ - \angle OAP - \angle OBP - \angle AOB = 360^\circ - 90^\circ - 90^\circ - 130^\circ = 50^\circ$
- ✓ Therefore, the measure of  $\angle P$  is  $50^\circ$ .

### ChatGPT-4o

- ✓ We are given a circle with center O, and triangle ABC inscribed in it. AP and BP are extended such that they intersect at point P outside the circle.
- ✗ In circle geometry, the angle formed by two chords intersecting outside the circle (like  $\angle APB$ ) equals the difference between the arcs they intercept divided by 2:  
$$\angle APB = \frac{1}{2}(\widehat{AB} - \widehat{CD})$$
- ✗ But in this case, since APB subtends the arc AB, and triangle ABC is inscribed in the circle:  
$$\angle APB = 180^\circ - \angle ACB$$

### Qwen2.5-VL-7B

- ✗ Given:  $\angle ACB = 65^\circ$ . Since O is the center of the circle, OA, OB, and OC are radii of the circle, making triangle OAB an equilateral triangle (since all sides are equal).
- ✓ The central angle subtended by arc AB at the center O is twice the inscribed angle subtended by the same arc at any point on the circumference. Therefore:  $\angle AOB = 2 \times \angle ACB = 2 \times 65^\circ = 130^\circ$
- ✗ Now consider triangle OAP. Since OA and OP are both radii of the circle, they form two equal sides of this triangle. Thus, triangle OAP is isosceles with  $OA = OP$ .
- ✗  $\angle OAP + \angle OPA + \angle AOP = 180^\circ$ , then  $2 \angle OAP + 130^\circ = 180^\circ$ . So  $\angle OAP = 25^\circ$ . Therefore,  $\angle APB = 2 \angle OPA = 50^\circ$ .