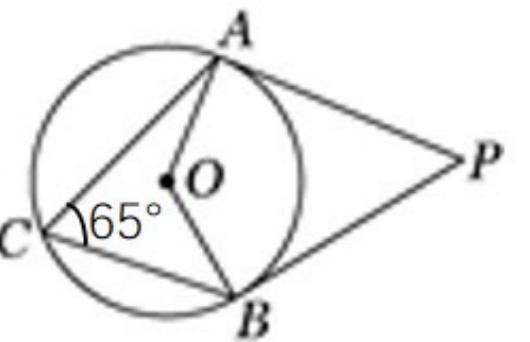


	Ours	ChatGPT-4o	Qwen2.5-VL-7B
 <p><b>Question:</b> Find angle P</p> <p><b>Answer:</b> 50°</p>	<p>Given that PA and PB are tangents to circle O at points A and B respectively, we can conclude that OA is perpendicular to AP and OB is perpendicular to BP. Therefore, <math>\angle OAP = \angle OBP = 90^\circ</math></p> <p>Since <math>\angle ACB = 65^\circ</math>, we have <math>\angle AOB = 2\angle ACB = 130^\circ</math>.</p> <p>Using the fact that the sum of angles in a quadrilateral is <math>360^\circ</math>, we can find <math>\angle APB</math>: <math>\angle APB = 360^\circ - \angle OAP - \angle OBP - \angle AOB = 360^\circ - 90^\circ - 90^\circ - 130^\circ = 50^\circ</math></p> <p>Therefore, the measure of <math>\angle P</math> is 50°.</p>	<p>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.</p> <p>In circle geometry, the angle formed by two chords intersecting outside the circle (like <math>\angle APB</math>) equals the difference between the arcs they intercept divided by 2: <math>\angle APB = \frac{1}{2}(\widehat{AB} - \widehat{CD})</math></p> <p>But in this case, since APB subtends the arc AB, and triangle ABC is inscribed in the circle: <math>\angle APB = 180^\circ - \angle ACB</math></p>	<p>Given: <math>\angle ACB=65^\circ</math>. 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).</p> <p>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: <math>\angle AOB = 2\times\angle ACB = 2\times65^\circ=130^\circ</math></p> <p>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 <math>OA=OP</math>.</p> <p><math>\angle OAP+\angle OPA+\angle AOP=180^\circ</math>, then <math>2\angle OAP + 130^\circ = 180^\circ</math>. So <math>\angle OAP = 25^\circ</math>. Therefore, <math>\angle APB = 2\angle OPA = 50^\circ</math>.</p>