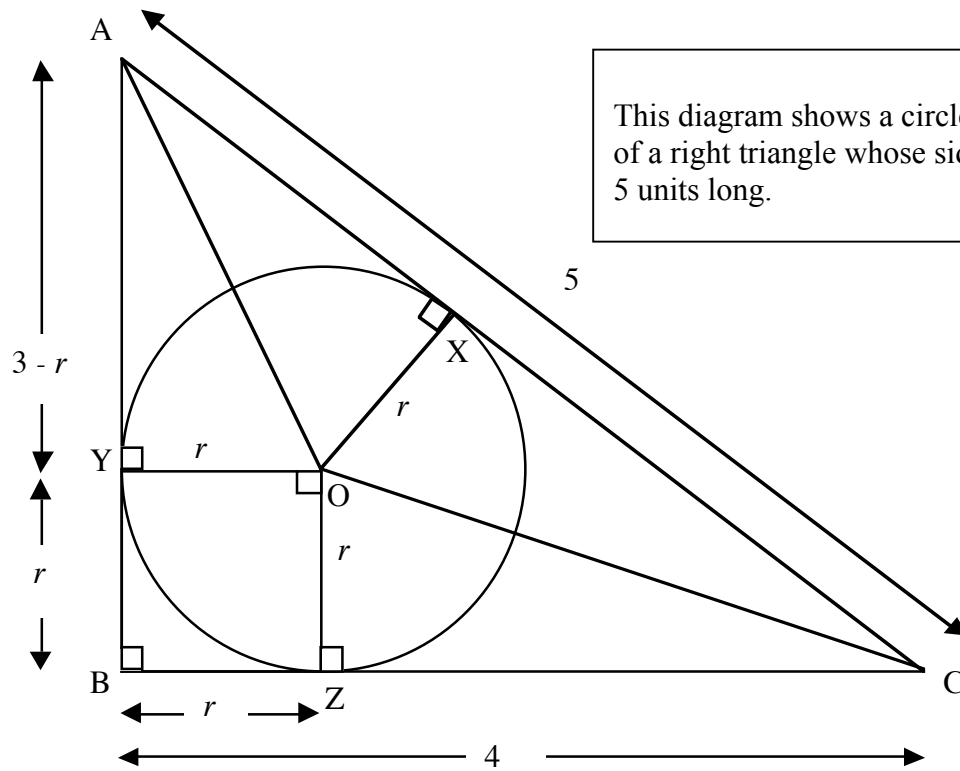


Circles in Triangles



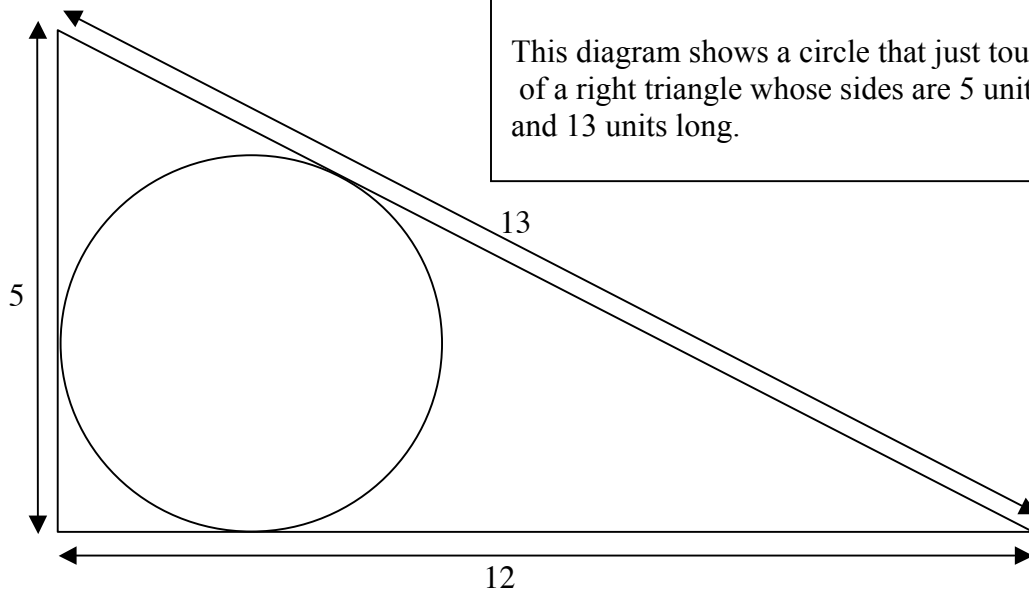
This diagram shows a circle that just touches the sides of a right triangle whose sides are 3 units, 4 units, and 5 units long.

1. Prove that triangles AOX and AOY are congruent.

2. What can you say about the measures of the line segments CX and CZ?

3. Find r , the radius of the circle. Explain your work clearly and show all your calculations.

4.



Draw construction lines as in the previous task, and find the radius of the circle in this 5, 12, 13 right triangle. Explain your work and show your calculations.
