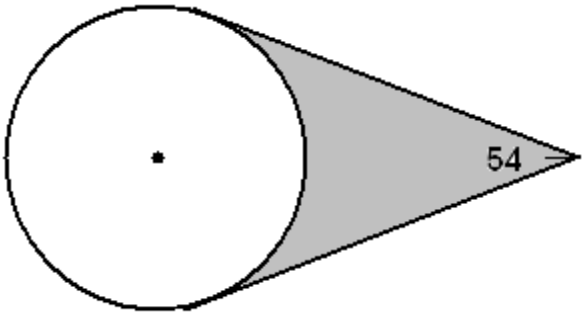
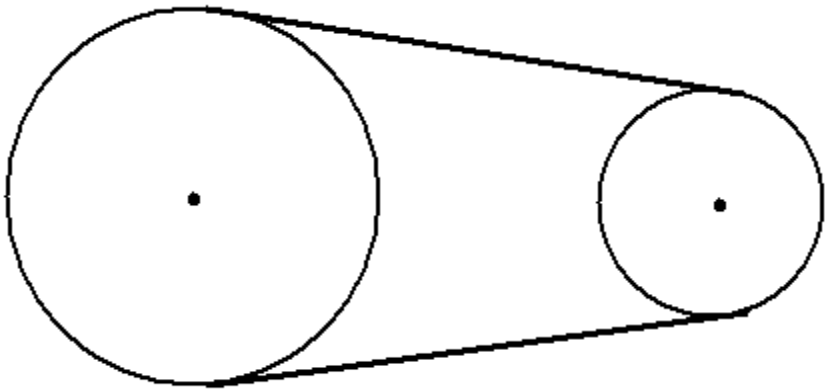
CP Geometry **Name:** _____

More Interesting Problems with Tangents

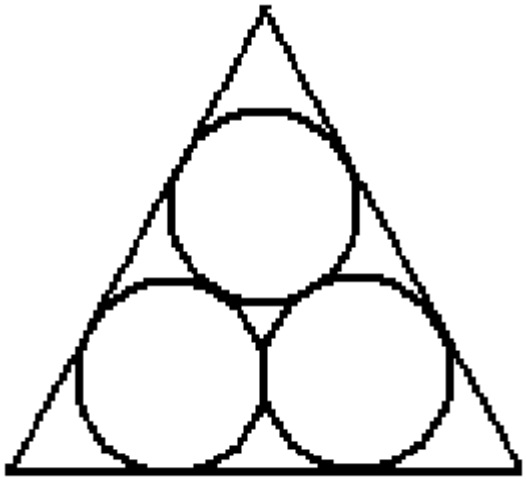
[EX 1] The circle has a radius of 18 cm. Two tangents are drawn to it from a point outside the circle. Find the area of the shaded region.



[EX 2] A belt connects two gears on a mechanical object. The distance between the centers of the gears is 50 inches. If the radius of the larger gear is 20 inches and the radius of the smaller gear is 14 inches, what is the length of the belt that would be wrapped around the gears?



[EX 3] The three congruent circles in the figure are tangent to each other and the sides of the equilateral triangle. Given that the radius of each circle is 4 cm, find the EXACT perimeter of the triangle.



[EX 4] A room is built in the shape of the region shown below: concentric semicircles. The furthest distance between two points with a clear line of sight in the room is 12 feet. What is the area of the room in square feet?