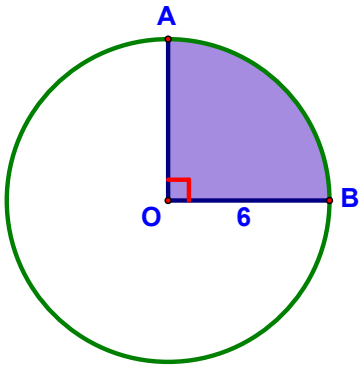
6.

a. Find the length of $\overset{\frown}{AB}$

b. Find the perimeter of the sector AOB

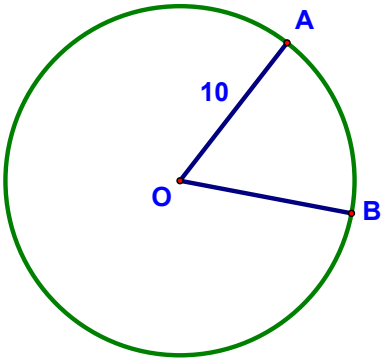


8.

The radius of ⊙O is 10 mm and the length of $\overset{\frown}{AB}$ is 4π mm.

a. Find the circumference of ⊙O

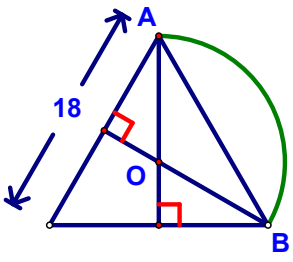
b. Find $m\overset{\frown}{AB}$



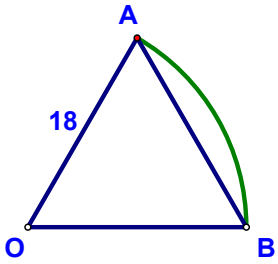
9.

Given arcs mounted on equilateral triangles as shown, find the length of each arc. In each case $\overline{OA}$ is a radius of $\overset{\frown}{AB}$.

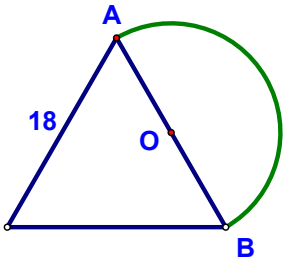
a.



b.

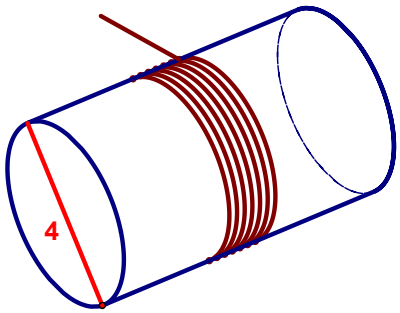


c.



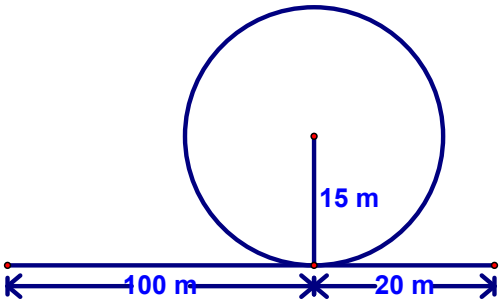
10.

There are 100 turns of thread on a spool with a diameter of 4 cm. Find the length of the thread to the nearest centimeter.



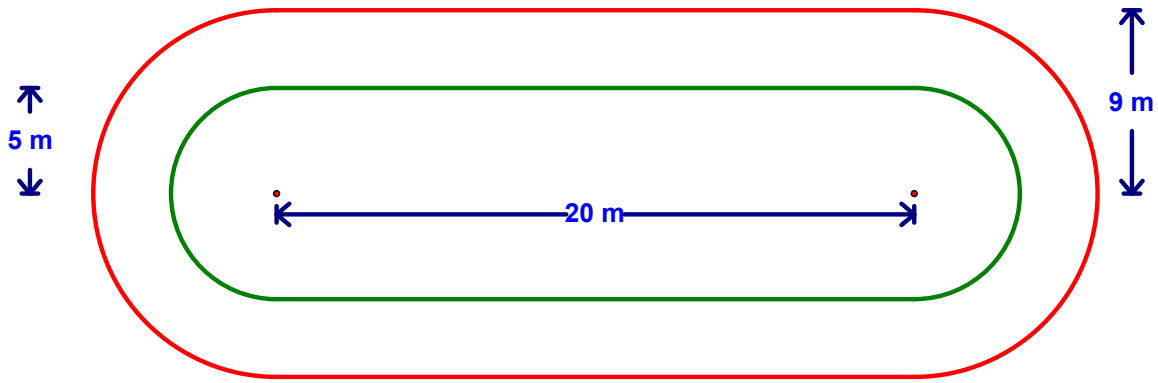
11.

Awful Kanaufil plans to ride his cycle on a single loop track. There is 100 m of straight track before the loop and 20 m after. The loop has a radius of 15 m. To the nearest meter, what is the total length of the track he must ride?



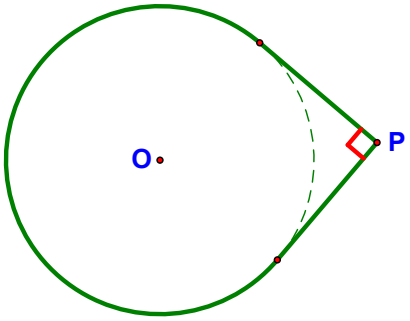
13.

Sandy skated on the rink shown. To the nearest tenth of a meter, how far did she travel going once around in the outside lane? In the inside lane?



14.

A belt, wrapped tightly around ⊙O forms a right angle at P, a point outside the circle. Find the length of the belt if ⊙O has a radius of 6.



15.

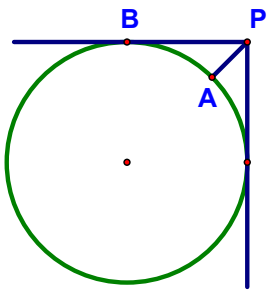
Find the distance traveled in one back-and-forth swing by the weight of a 12-in. pendulum that swings through a 75° angle.

16.

A circular garbage can is wedged into a rectangular corner. The can has a diameter of 48 cm.

a. Find the distance from the corner piont to the point of contact of the can with the wall (PB)

b. Find the distance from the corner point to the can (PA)



17.

Two pulleys are connected by a belt. The radii of the pulleys are 3 cm and 15 cm, and the distance between their centers is 24 cm. Find the total length of belt needed to connect the pulleys.