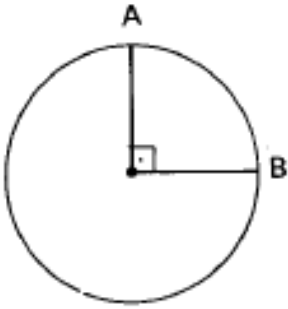


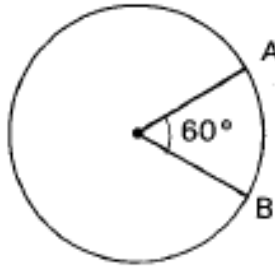
Lista de círculos e áreas

1. Determine o comprimento do arco menor $\widehat{AB}$, dado o raio de 90 cm e o ângulo central correspondente, nos casos:

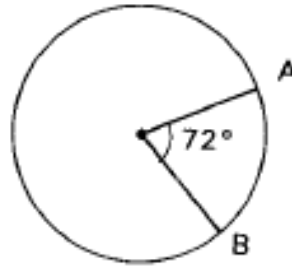
a)



b)

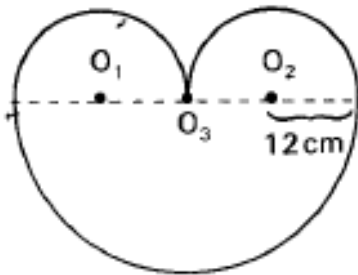


c)

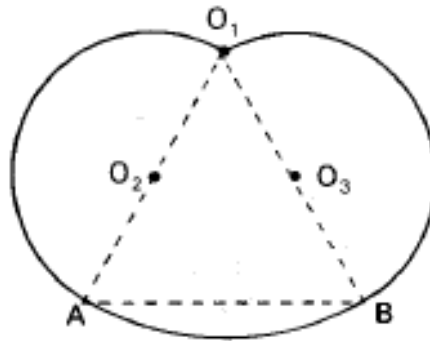


2. Determine o comprimento da linha cheia nos casos (a linha de cor preta), sabendo que os arcos são centrados em O_1 , O_2 e O_3 .

a)



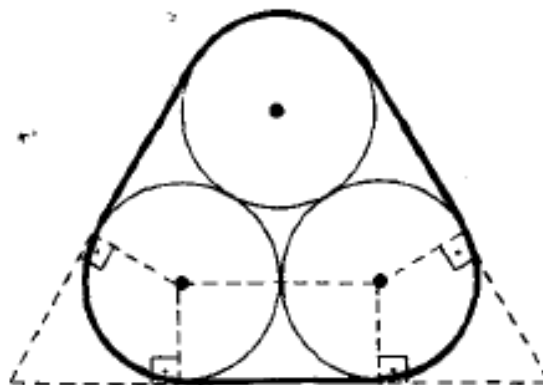
b) AO_1B é triângulo equilátero de 12 cm de lado



3. Quanto aumenta o raio de uma circunferência quando seu comprimento aumenta 5 metros ?

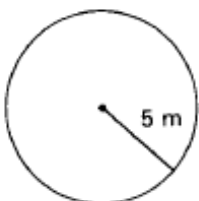
4. Em quanto aumenta o comprimento de uma circunferência cujo raio sofreu um aumento de 50% ?

5. Na figura abaixo, os três círculos têm raio de 10 cm. Determine o comprimento da correia que envolve os três círculos.

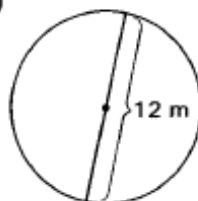


6. Determine a área do círculo e seu comprimento, nos casos:

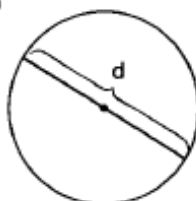
a)



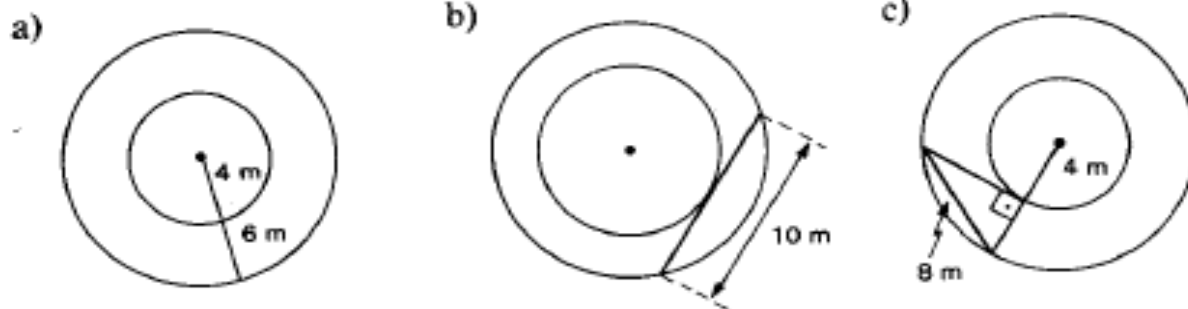
b)



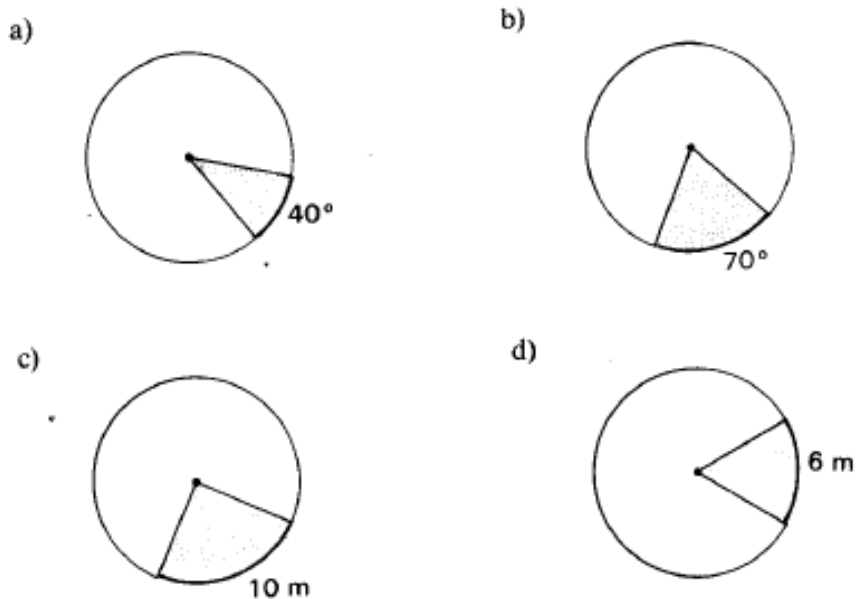
c)



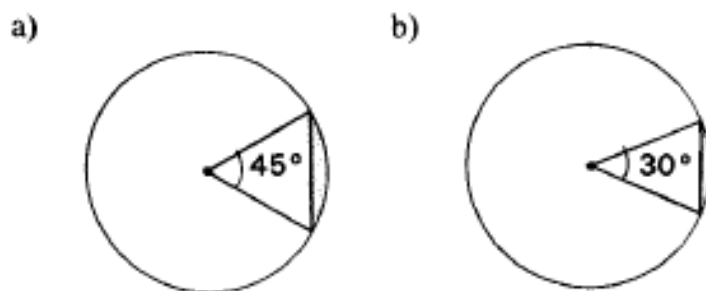
7. Determine a área da coroa circular, nos casos:



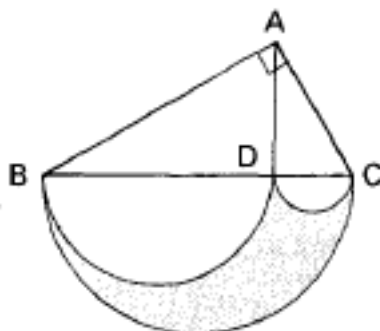
8. Determine a área de cada setor circular nos casos abaixo, sendo 6 m o raio:



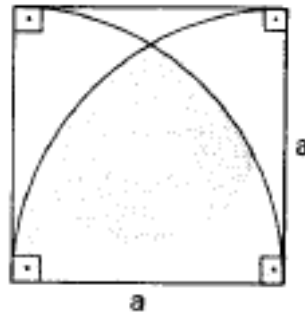
9. Determine a área do segmento sombreado nos casos abaixo, sendo o raio de 6 m:



10. Sabendo que os catetos $\overline{AB}$ e $\overline{AC}$ valem, respectivamente, 1,5 cm e 2 cm, determine a área da figura sombreada.

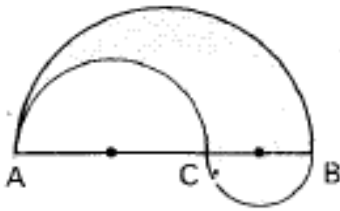


11. Calcule a área da parte sombreada.

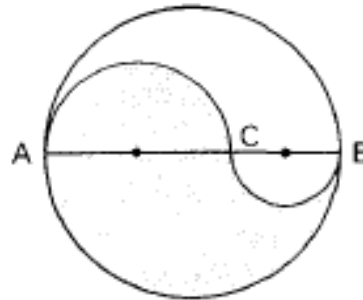


12. Determine a área sombreada, nas figuras abaixo, sendo AC o triplo de CB e AB igual a 32 cm.

a)

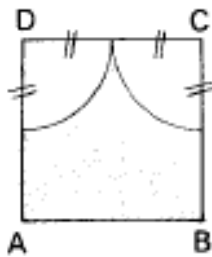


b)

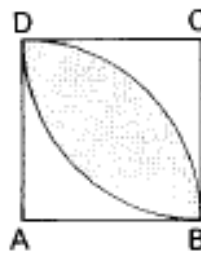


13. Determine a área sombreada, nas figuras abaixo, sabendo que os três quadrados ABCD têm lado de 2 cm.

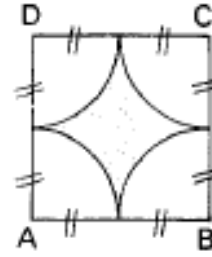
a)



b)



c)



GABARITO

1. a) 45π cm b) 30π cm c) 36π cm

2. a) 48π cm b) 16π cm

3. $\frac{5}{2\pi}$ m

4. 50%

5. $20(3 + \pi)$ cm

6. a) 25π m²; 10π m b) 36π m²; 12π m c) $\frac{\pi d^2}{4}$; πd

7. a) 84π m² b) 25π m² c) 48π m²

8. a) 4π m² b) 7π m² c) 30π m² d) 18π m²

9. a) $\frac{9}{2} \cdot (\pi - 2\sqrt{2})$ m² b) $3(\pi - 3)$ m²

10. $\frac{9\pi}{25}$ cm²

11. $\frac{4\pi - 3\sqrt{3}}{12} \cdot a^2$

12. a) 64π cm² b) 192π cm²

13. a) $\frac{4-\pi}{2}$ cm² b) $2(\pi - 2)$ cm² c) $(4 - \pi)$ cm²