calculatoratoz.com

unitsconverters.com

Circular Sector Formulas

Calculators! Examples! Conversions!

Bookmark **calculatoratoz.com**, **unitsconverters.com**

Widest Coverage of Calculators and Growing - **30,000+ Calculators!**
Calculate With a Different Unit for Each Variable - **In built Unit Conversion!**
Widest Collection of Measurements and Units - **250+ Measurements!**

Feel free to SHARE this document with your friends!

Please leave your feedback here...

List of 12 Circular Sector Formulas

Circular Sector

1) Area of Circle given Area of Sector

Open Calculator

fx $$A_{Circle} = \frac{2 \cdot \pi \cdot A}{\angle_{Sector}}$$

ex $$81m^2 = \frac{2 \cdot \pi \cdot 9m^2}{40^\circ}$$

2) Diameter of Circle given Area of Sector

Open Calculator

fx $$D = 2 \cdot \sqrt{\frac{2 \cdot A}{\angle_{Sector}}}$$

ex $$10.15541m = 2 \cdot \sqrt{\frac{2 \cdot 9m^2}{40^\circ}}$$

3) Inscribed Angle of Circle given Area of Sector

Open Calculator

fx $$\angle_{Inscribed} = \pi - \frac{A}{r^2}$$

ex $$159.3735^\circ = \pi - \frac{9m^2}{(5m)^2}$$

4) Radius of Circle given Area of Sector

Open Calculator

fx $$r = \sqrt{\frac{2 \cdot A}{\angle_{Sector}}}$$

ex $$5.077706\text{m} = \sqrt{\frac{2 \cdot 9\text{m}^2}{40^\circ}}$$

Angle of Circular Sector

5) Angle of Circular Sector given Arc Length

Open Calculator

fx $$\angle_{Sector} = \frac{l_{Arc}}{r}$$

ex $$45.83662^\circ = \frac{4\text{m}}{5\text{m}}$$

6) Angle of Circular Sector given Area of Circular Sector

Open Calculator

fx $$\angle_{Sector} = \frac{2 \cdot A}{r^2}$$

ex $$41.25296^\circ = \frac{2 \cdot 9\text{m}^2}{(5\text{m})^2}$$

Area of Circular Sector

7) Area of Circular Sector

Open Calculator

fx $$A = \frac{\angle_{Sector}}{2} \cdot r^2$$

ex $$8.726646\text{m}^2 = \frac{40^\circ}{2} \cdot (5\text{m})^2$$

8) Area of Circular Sector given Arc Length

Open Calculator

fx $$A = \frac{r \cdot l_{Arc}}{2}$$

ex $$10\text{m}^2 = \frac{5\text{m} \cdot 4\text{m}}{2}$$

9) Area of Circular Sector given Area of Circle

Open Calculator

fx $$A = \frac{\angle_{Sector}}{2 \cdot \pi} \cdot A_{Circle}$$

ex $$8.888889\text{m}^2 = \frac{40^\circ}{2 \cdot \pi} \cdot 80\text{m}^2$$

Perimeter of Circular Sector

10) Perimeter of Circular Sector

Open Calculator

fx $$P = (\angle_{Sector} + 2) \cdot r$$

ex $$13.49066\text{m} = (40^\circ + 2) \cdot 5\text{m}$$

11) Perimeter of Circular Sector given Arc Length

Open Calculator

fx $$P = l_{Arc} + 2 \cdot r$$

ex $$14\text{m} = 4\text{m} + 2 \cdot 5\text{m}$$

12) Perimeter of Circular Sector given Circumference of Circle

Open Calculator

fx $$P = \left(C_{Circle} \cdot \frac{\angle_{Sector}}{2 \cdot \pi} \right) + (2 \cdot r)$$

ex $$13.33333\text{m} = \left(30\text{m} \cdot \frac{40^\circ}{2 \cdot \pi} \right) + (2 \cdot 5\text{m})$$

Variables Used

- $\angle_{Inscribed}$ Inscribed Angle of Circle *(Degree)*
- $\angle_{Sector}$ Angle of Circular Sector *(Degree)*
- A Area of Circular Sector *(Square Meter)*
- A_{Circle} Area of Circle of Circular Sector *(Square Meter)*
- C_{Circle} Circumference of Circle of Circular Sector *(Meter)*
- D Diameter of Circle *(Meter)*
- l_{Arc} Arc Length of Circular Sector *(Meter)*
- P Perimeter of Circular Sector *(Meter)*
- r Radius of Circular Sector *(Meter)*

Constants, Functions, Measurements used

- Constant: **pi**, 3.14159265358979323846264338327950288
  Archimedes' constant
- Function: **sqrt**, sqrt(Number)
  A square root function is a function that takes a non-negative number as an input and returns the square root of the given input number.
- Measurement: **Length** in Meter (m)
  Length Unit Conversion
- Measurement: **Area** in Square Meter (m²)
  Area Unit Conversion
- Measurement: **Angle** in Degree (°)
  Angle Unit Conversion

Check other formula lists

- **Circle Formulas**
- **Circular Arc Formulas**
- **Circular Ring Formulas**
- **Circular Sector Formulas**

Feel free to SHARE this document with your friends!

PDF Available in

English Spanish French German Russian Italian Portuguese Polish Dutch

3/15/2024 | 7:12:31 AM UTC

Please leave your feedback here...