

Important Antiprism Formulas PDF



**Formulas
Examples
with Units**

**List of 20
Important Antiprism Formulas**

1) Edge Length of Antiprism Formulas ↻

1.1) Edge Length of Antiprism Formula ↻

Formula

$$l_e = \frac{h}{\sqrt{1 - \frac{\left(\sec\left(\frac{\pi}{2 \cdot N_{\text{Vertices}}}\right)\right)^2}{4}}}$$

Example with Units

$$9.4046\text{m} = \frac{8\text{m}}{\sqrt{1 - \frac{\left(\sec\left(\frac{3.1416}{2 \cdot 5}\right)\right)^2}{4}}}$$

Evaluate Formula ↻

1.2) Edge Length of Antiprism given Surface to Volume Ratio Formula ↻

Formula

$$l_e = \frac{6 \cdot \left(\sin\left(\frac{\pi}{N_{\text{Vertices}}}\right)\right)^2 \cdot \left(\cot\left(\frac{\pi}{N_{\text{Vertices}}}\right) + \sqrt{3}\right)}{\sin\left(\frac{3 \cdot \pi}{2 \cdot N_{\text{Vertices}}}\right) \cdot \sqrt{4 \cdot \left(\cos\left(\frac{\pi}{2 \cdot N_{\text{Vertices}}}\right)\right)^2 - 1} \cdot R_{A/V}}$$

Evaluate Formula ↻

Example with Units

$$9.845\text{m} = \frac{6 \cdot \left(\sin\left(\frac{3.1416}{5}\right)\right)^2 \cdot \left(\cot\left(\frac{3.1416}{5}\right) + \sqrt{3}\right)}{\sin\left(\frac{3 \cdot 3.1416}{2 \cdot 5}\right) \cdot \sqrt{4 \cdot \left(\cos\left(\frac{3.1416}{2 \cdot 5}\right)\right)^2 - 1} \cdot 0.5\text{m}^{-1}}$$

1.3) Edge Length of Antiprism given Total Surface Area Formula ↻

Formula

$$l_e = \sqrt{\frac{\text{TSA}}{\frac{N_{\text{Vertices}}}{2} \cdot \left(\cot\left(\frac{\pi}{N_{\text{Vertices}}}\right) + \sqrt{3}\right)}}$$

Example with Units

$$10.0186\text{m} = \sqrt{\frac{780\text{m}^2}{\frac{5}{2} \cdot \left(\cot\left(\frac{3.1416}{5}\right) + \sqrt{3}\right)}}$$

Evaluate Formula ↻



1.4) Edge Length of Antiprism given Volume Formula

Evaluate Formula 

Formula

$$l_e = \left(\frac{12 \cdot \left(\sin \left(\frac{\pi}{N_{\text{Vertices}}} \right) \right)^2 \cdot V}{N_{\text{Vertices}} \cdot \sin \left(\frac{3 \cdot \pi}{2 \cdot N_{\text{Vertices}}} \right) \cdot \sqrt{4 \cdot \left(\cos \left(\frac{\pi}{2 \cdot N_{\text{Vertices}}} \right) \right)^2 - 1}} \right)^{\frac{1}{3}}$$

Example with Units

$$10.0028 \text{ m} = \left(\frac{12 \cdot \left(\sin \left(\frac{3.1416}{5} \right) \right)^2 \cdot 1580 \text{ m}^3}{5 \cdot \sin \left(\frac{3 \cdot 3.1416}{2 \cdot 5} \right) \cdot \sqrt{4 \cdot \left(\cos \left(\frac{3.1416}{2 \cdot 5} \right) \right)^2 - 1}} \right)^{\frac{1}{3}}$$

2) Height of Antiprism Formulas

2.1) Height of Antiprism Formula

Evaluate Formula 

Formula

$$h = \sqrt{1 - \frac{\left(\sec \left(\frac{\pi}{2 \cdot N_{\text{Vertices}}} \right) \right)^2}{4}} \cdot l_e$$

Example with Units

$$8.5065 \text{ m} = \sqrt{1 - \frac{\left(\sec \left(\frac{3.1416}{2 \cdot 5} \right) \right)^2}{4}} \cdot 10 \text{ m}$$

2.2) Height of Antiprism given Surface to Volume Ratio Formula

Evaluate Formula 

Formula

$$h = \sqrt{1 - \frac{\left(\sec \left(\frac{\pi}{2 \cdot N_{\text{Vertices}}} \right) \right)^2}{4}} \cdot \frac{6 \cdot \left(\sin \left(\frac{\pi}{N_{\text{Vertices}}} \right) \right)^2 \cdot \left(\cot \left(\frac{\pi}{N_{\text{Vertices}}} \right) + \sqrt{3} \right)}{\sin \left(\frac{3 \cdot \pi}{2 \cdot N_{\text{Vertices}}} \right) \cdot \sqrt{4 \cdot \left(\cos \left(\frac{\pi}{2 \cdot N_{\text{Vertices}}} \right) \right)^2 - 1} \cdot R_{A/V}}$$

Example with Units

$$8.3746 \text{ m} = \sqrt{1 - \frac{\left(\sec \left(\frac{3.1416}{2 \cdot 5} \right) \right)^2}{4}} \cdot \frac{6 \cdot \left(\sin \left(\frac{3.1416}{5} \right) \right)^2 \cdot \left(\cot \left(\frac{3.1416}{5} \right) + \sqrt{3} \right)}{\sin \left(\frac{3 \cdot 3.1416}{2 \cdot 5} \right) \cdot \sqrt{4 \cdot \left(\cos \left(\frac{3.1416}{2 \cdot 5} \right) \right)^2 - 1} \cdot 0.5 \text{ m}^{-1}}$$



2.3) Height of Antiprism given Total Surface Area Formula

Evaluate Formula 

Formula

$$h = \sqrt{1 - \frac{\left(\sec\left(\frac{\pi}{2 \cdot N_{\text{Vertices}}}\right)\right)^2}{4}} \cdot \sqrt{\frac{\text{TSA}}{\frac{N_{\text{Vertices}}}{2} \cdot \left(\cot\left(\frac{\pi}{N_{\text{Vertices}}}\right) + \sqrt{3}\right)}}$$

Example with Units

$$8.5223 \text{ m} = \sqrt{1 - \frac{\left(\sec\left(\frac{3.1416}{2 \cdot 5}\right)\right)^2}{4}} \cdot \sqrt{\frac{780 \text{ m}^2}{\frac{5}{2} \cdot \left(\cot\left(\frac{3.1416}{5}\right) + \sqrt{3}\right)}}$$

2.4) Height of Antiprism given Volume Formula

Evaluate Formula 

Formula

$$h = \sqrt{1 - \frac{\left(\sec\left(\frac{\pi}{2 \cdot N_{\text{Vertices}}}\right)\right)^2}{4}} \cdot \left(\frac{12 \cdot \left(\sin\left(\frac{\pi}{N_{\text{Vertices}}}\right)\right)^2 \cdot V}{N_{\text{Vertices}} \cdot \sin\left(\frac{3 \cdot \pi}{2 \cdot N_{\text{Vertices}}}\right) \cdot \sqrt{4 \cdot \left(\cos\left(\frac{\pi}{2 \cdot N_{\text{Vertices}}}\right)\right)^2 - 1}} \right)^{\frac{1}{3}}$$

Example with Units

$$8.5089 \text{ m} = \sqrt{1 - \frac{\left(\sec\left(\frac{3.1416}{2 \cdot 5}\right)\right)^2}{4}} \cdot \left(\frac{12 \cdot \left(\sin\left(\frac{3.1416}{5}\right)\right)^2 \cdot 1580 \text{ m}^3}{5 \cdot \sin\left(\frac{3 \cdot 3.1416}{2 \cdot 5}\right) \cdot \sqrt{4 \cdot \left(\cos\left(\frac{3.1416}{2 \cdot 5}\right)\right)^2 - 1}} \right)^{\frac{1}{3}}$$

3) Surface Area of Antiprism Formulas



3.1) Total Surface Area of Antiprism Formulas

3.1.1) Total Surface Area of Antiprism Formula

Formula

$$TSA = \frac{N_{\text{Vertices}}}{2} \cdot \left(\cot\left(\frac{\pi}{N_{\text{Vertices}}}\right) + \sqrt{3} \right) \cdot l_e^2$$

Evaluate Formula 

Example with Units

$$777.1082 \text{ m}^2 = \frac{5}{2} \cdot \left(\cot\left(\frac{3.1416}{5}\right) + \sqrt{3} \right) \cdot 10 \text{ m}^2$$

3.1.2) Total Surface Area of Antiprism given Height Formula

Formula

Evaluate Formula 

$$TSA = \frac{N_{\text{Vertices}}}{2} \cdot \left(\cot\left(\frac{\pi}{N_{\text{Vertices}}}\right) + \sqrt{3} \right) \cdot \left(\frac{h}{\sqrt{1 - \frac{\left(\sec\left(\frac{\pi}{2 \cdot N_{\text{Vertices}}}\right)\right)^2}{4}}} \right)^2$$

Example with Units

$$687.3197 \text{ m}^2 = \frac{5}{2} \cdot \left(\cot\left(\frac{3.1416}{5}\right) + \sqrt{3} \right) \cdot \left(\frac{8 \text{ m}}{\sqrt{1 - \frac{\left(\sec\left(\frac{3.1416}{2 \cdot 5}\right)\right)^2}{4}}} \right)^2$$



3.1.3) Total Surface Area of Antiprism given Surface to Volume Ratio Formula

Evaluate Formula 

Formula

$$TSA = \frac{N_{Vertices}}{2} \cdot \left(\cot\left(\frac{\pi}{N_{Vertices}}\right) + \sqrt{3} \right) \cdot \left(\frac{6 \cdot \left(\sin\left(\frac{\pi}{N_{Vertices}}\right) \right)^2 \cdot \left(\cot\left(\frac{\pi}{N_{Vertices}}\right) + \sqrt{3} \right)}{\sin\left(\frac{3 \cdot \pi}{2 \cdot N_{Vertices}}\right) \cdot \sqrt{4 \cdot \left(\cos\left(\frac{\pi}{2 \cdot N_{Vertices}}\right) \right)^2 - 1 \cdot R_{A/V}}} \right)^2$$

Example with Units

$$753.2014 \text{ m}^2 = \frac{5}{2} \cdot \left(\cot\left(\frac{3.1416}{5}\right) + \sqrt{3} \right) \cdot \left(\frac{6 \cdot \left(\sin\left(\frac{3.1416}{5}\right) \right)^2 \cdot \left(\cot\left(\frac{3.1416}{5}\right) + \sqrt{3} \right)}{\sin\left(\frac{3 \cdot 3.1416}{2 \cdot 5}\right) \cdot \sqrt{4 \cdot \left(\cos\left(\frac{3.1416}{2 \cdot 5}\right) \right)^2 - 1 \cdot 0.5 \text{ m}^{-1}}} \right)^2$$

3.1.4) Total Surface Area of Antiprism given Volume Formula

Evaluate Formula 

Formula

$$TSA = \frac{N_{Vertices}}{2} \cdot \left(\cot\left(\frac{\pi}{N_{Vertices}}\right) + \sqrt{3} \right) \cdot \left(\frac{12 \cdot \left(\sin\left(\frac{\pi}{N_{Vertices}}\right) \right)^2 \cdot V}{N_{Vertices} \cdot \sin\left(\frac{3 \cdot \pi}{2 \cdot N_{Vertices}}\right) \cdot \sqrt{4 \cdot \left(\cos\left(\frac{\pi}{2 \cdot N_{Vertices}}\right) \right)^2 - 1}} \right)^{\frac{2}{3}}$$

Example with Units

$$777.5382 \text{ m}^2 = \frac{5}{2} \cdot \left(\cot\left(\frac{3.1416}{5}\right) + \sqrt{3} \right) \cdot \left(\frac{12 \cdot \left(\sin\left(\frac{3.1416}{5}\right) \right)^2 \cdot 1580 \text{ m}^3}{5 \cdot \sin\left(\frac{3 \cdot 3.1416}{2 \cdot 5}\right) \cdot \sqrt{4 \cdot \left(\cos\left(\frac{3.1416}{2 \cdot 5}\right) \right)^2 - 1}} \right)^{\frac{2}{3}}$$



4) Surface to Volume Ratio of Antiprism Formulas

4.1) Surface to Volume Ratio of Antiprism Formula

Formula

Evaluate Formula 

$$R_{A/V} = \frac{6 \cdot \left(\sin \left(\frac{\pi}{N_{\text{Vertices}}} \right) \right)^2 \cdot \left(\cot \left(\frac{\pi}{N_{\text{Vertices}}} \right) + \sqrt{3} \right)}{\sin \left(\frac{3 \cdot \pi}{2 \cdot N_{\text{Vertices}}} \right) \cdot \sqrt{4 \cdot \left(\cos \left(\frac{\pi}{2 \cdot N_{\text{Vertices}}} \right) \right)^2} - 1 \cdot l_e}$$

Example with Units

$$0.4922 \text{ m}^{-1} = \frac{6 \cdot \left(\sin \left(\frac{3.1416}{5} \right) \right)^2 \cdot \left(\cot \left(\frac{3.1416}{5} \right) + \sqrt{3} \right)}{\sin \left(\frac{3 \cdot 3.1416}{2 \cdot 5} \right) \cdot \sqrt{4 \cdot \left(\cos \left(\frac{3.1416}{2 \cdot 5} \right) \right)^2} - 1 \cdot 10 \text{ m}}$$

4.2) Surface to Volume Ratio of Antiprism given Height Formula

Formula

Evaluate Formula 

$$R_{A/V} = \frac{6 \cdot \left(\sin \left(\frac{\pi}{N_{\text{Vertices}}} \right) \right)^2 \cdot \left(\cot \left(\frac{\pi}{N_{\text{Vertices}}} \right) + \sqrt{3} \right)}{\sin \left(\frac{3 \cdot \pi}{2 \cdot N_{\text{Vertices}}} \right) \cdot \sqrt{4 \cdot \left(\cos \left(\frac{\pi}{2 \cdot N_{\text{Vertices}}} \right) \right)^2} - 1 \cdot \frac{h}{\sqrt{1 - \frac{\left(\sec \left(\frac{\pi}{2 \cdot N_{\text{Vertices}}} \right) \right)^2}{4}}}}$$

Example with Units

$$0.5234 \text{ m}^{-1} = \frac{6 \cdot \left(\sin \left(\frac{3.1416}{5} \right) \right)^2 \cdot \left(\cot \left(\frac{3.1416}{5} \right) + \sqrt{3} \right)}{\sin \left(\frac{3 \cdot 3.1416}{2 \cdot 5} \right) \cdot \sqrt{4 \cdot \left(\cos \left(\frac{3.1416}{2 \cdot 5} \right) \right)^2} - 1 \cdot \frac{8 \text{ m}}{\sqrt{1 - \frac{\left(\sec \left(\frac{3.1416}{2 \cdot 5} \right) \right)^2}{4}}}}$$



4.3) Surface to Volume Ratio of Antiprism given Total Surface Area Formula

Evaluate Formula 

Formula

$$R_{A/V} = \frac{6 \cdot \left(\sin \left(\frac{\pi}{N_{\text{Vertices}}} \right) \right)^2 \cdot \left(\cot \left(\frac{\pi}{N_{\text{Vertices}}} \right) + \sqrt{3} \right)}{\sin \left(\frac{3 \cdot \pi}{2 \cdot N_{\text{Vertices}}} \right) \cdot \sqrt{4 \cdot \left(\cos \left(\frac{\pi}{2 \cdot N_{\text{Vertices}}} \right) \right)^2} - 1 \cdot \frac{\text{TSA}}{\frac{N_{\text{Vertices}}}{2} \cdot \left(\cot \left(\frac{\pi}{N_{\text{Vertices}}} \right) + \sqrt{3} \right)}}$$

Example with Units

$$0.4913 \text{ m}^{-1} = \frac{6 \cdot \left(\sin \left(\frac{3.1416}{5} \right) \right)^2 \cdot \left(\cot \left(\frac{3.1416}{5} \right) + \sqrt{3} \right)}{\sin \left(\frac{3 \cdot 3.1416}{2 \cdot 5} \right) \cdot \sqrt{4 \cdot \left(\cos \left(\frac{3.1416}{2 \cdot 5} \right) \right)^2} - 1 \cdot \frac{780 \text{ m}^2}{\frac{5}{2} \cdot \left(\cot \left(\frac{3.1416}{5} \right) + \sqrt{3} \right)}}$$

4.4) Surface to Volume Ratio of Antiprism given Volume Formula

Evaluate Formula 

Formula

$$R_{A/V} = \frac{6 \cdot \left(\sin \left(\frac{\pi}{N_{\text{Vertices}}} \right) \right)^2 \cdot \left(\cot \left(\frac{\pi}{N_{\text{Vertices}}} \right) + \sqrt{3} \right)}{\sin \left(\frac{3 \cdot \pi}{2 \cdot N_{\text{Vertices}}} \right) \cdot \sqrt{4 \cdot \left(\cos \left(\frac{\pi}{2 \cdot N_{\text{Vertices}}} \right) \right)^2} - 1 \cdot \left(\frac{12 \cdot \left(\sin \left(\frac{\pi}{N_{\text{Vertices}}} \right) \right)^2 \cdot V}{N_{\text{Vertices}} \cdot \sin \left(\frac{3 \cdot \pi}{2 \cdot N_{\text{Vertices}}} \right) \cdot \sqrt{4 \cdot \left(\cos \left(\frac{\pi}{2 \cdot N_{\text{Vertices}}} \right) \right)^2} - 1} \right)^{\frac{1}{3}}}$$

Example with Units

$$0.4921 \text{ m}^{-1} = \frac{6 \cdot \left(\sin \left(\frac{3.1416}{5} \right) \right)^2 \cdot \left(\cot \left(\frac{3.1416}{5} \right) + \sqrt{3} \right)}{\sin \left(\frac{3 \cdot 3.1416}{2 \cdot 5} \right) \cdot \sqrt{4 \cdot \left(\cos \left(\frac{3.1416}{2 \cdot 5} \right) \right)^2} - 1 \cdot \left(\frac{12 \cdot \left(\sin \left(\frac{3.1416}{5} \right) \right)^2 \cdot 1580 \text{ m}^3}{5 \cdot \sin \left(\frac{3 \cdot 3.1416}{2 \cdot 5} \right) \cdot \sqrt{4 \cdot \left(\cos \left(\frac{3.1416}{2 \cdot 5} \right) \right)^2} - 1} \right)^{\frac{1}{3}}}$$



5) Volume of Antiprism Formulas ↻

5.1) Volume of Antiprism Formula ↻

Evaluate Formula ↻

Formula

$$V = \frac{N_{\text{Vertices}} \cdot \sin\left(\frac{3 \cdot \pi}{2 \cdot N_{\text{Vertices}}}\right) \cdot \sqrt{4 \cdot \left(\cos\left(\frac{\pi}{2 \cdot N_{\text{Vertices}}}\right)\right)^2 - 1} \cdot l^3}{12 \cdot \left(\sin\left(\frac{\pi}{N_{\text{Vertices}}}\right)\right)^2}$$

Example with Units

$$1578.6893 \text{ m}^3 = \frac{5 \cdot \sin\left(\frac{3 \cdot 3.1416}{2 \cdot 5}\right) \cdot \sqrt{4 \cdot \left(\cos\left(\frac{3.1416}{2 \cdot 5}\right)\right)^2 - 1} \cdot 10 \text{ m}^3}{12 \cdot \left(\sin\left(\frac{3.1416}{5}\right)\right)^2}$$

5.2) Volume of Antiprism given Height Formula ↻

Evaluate Formula ↻

Formula

$$V = \frac{N_{\text{Vertices}} \cdot \sin\left(\frac{3 \cdot \pi}{2 \cdot N_{\text{Vertices}}}\right) \cdot \sqrt{4 \cdot \left(\cos\left(\frac{\pi}{2 \cdot N_{\text{Vertices}}}\right)\right)^2 - 1} \cdot \left(\frac{h}{\sqrt{1 - \frac{\left(\sec\left(\frac{\pi}{2 \cdot N_{\text{Vertices}}}\right)\right)^2}{4}}}\right)^3}{12 \cdot \left(\sin\left(\frac{\pi}{N_{\text{Vertices}}}\right)\right)^2}$$

Example with Units

$$1313.145 \text{ m}^3 = \frac{5 \cdot \sin\left(\frac{3 \cdot 3.1416}{2 \cdot 5}\right) \cdot \sqrt{4 \cdot \left(\cos\left(\frac{3.1416}{2 \cdot 5}\right)\right)^2 - 1} \cdot \left(\frac{8 \text{ m}}{\sqrt{1 - \frac{\left(\sec\left(\frac{3.1416}{2 \cdot 5}\right)\right)^2}{4}}}\right)^3}{12 \cdot \left(\sin\left(\frac{3.1416}{5}\right)\right)^2}$$



5.3) Volume of Antiprism given Surface to Volume Ratio Formula

Evaluate Formula 

Formula

$$V = \frac{N_{\text{Vertices}} \cdot \sin\left(\frac{3 \cdot \pi}{2 \cdot N_{\text{Vertices}}}\right) \cdot \sqrt{4 \cdot \left(\cos\left(\frac{\pi}{2 \cdot N_{\text{Vertices}}}\right)\right)^2 - 1} \cdot \left(\frac{6 \cdot \left(\sin\left(\frac{\pi}{N_{\text{Vertices}}}\right)\right)^2 \cdot \left(\cot\left(\frac{\pi}{N_{\text{Vertices}}}\right) + \sqrt{3}\right)}{\sin\left(\frac{3 \cdot \pi}{2 \cdot N_{\text{Vertices}}}\right) \cdot \sqrt{4 \cdot \left(\cos\left(\frac{\pi}{2 \cdot N_{\text{Vertices}}}\right)\right)^2 - 1} \cdot R_{A/V}}\right)^3}{12 \cdot \left(\sin\left(\frac{\pi}{N_{\text{Vertices}}}\right)\right)^2}$$

Example with Units

$$1506.4027 \text{ m}^3 = \frac{5 \cdot \sin\left(\frac{3 \cdot 3.1416}{2 \cdot 5}\right) \cdot \sqrt{4 \cdot \left(\cos\left(\frac{3.1416}{2 \cdot 5}\right)\right)^2 - 1} \cdot \left(\frac{6 \cdot \left(\sin\left(\frac{3.1416}{5}\right)\right)^2 \cdot \left(\cot\left(\frac{3.1416}{5}\right) + \sqrt{3}\right)}{\sin\left(\frac{3 \cdot 3.1416}{2 \cdot 5}\right) \cdot \sqrt{4 \cdot \left(\cos\left(\frac{3.1416}{2 \cdot 5}\right)\right)^2 - 1} \cdot 0.5 \text{ m}^{-1}}\right)^3}{12 \cdot \left(\sin\left(\frac{3.1416}{5}\right)\right)^2}$$

5.4) Volume of Antiprism given Total Surface Area Formula

Evaluate Formula 

Formula

$$V = \frac{N_{\text{Vertices}} \cdot \sin\left(\frac{3 \cdot \pi}{2 \cdot N_{\text{Vertices}}}\right) \cdot \sqrt{4 \cdot \left(\cos\left(\frac{\pi}{2 \cdot N_{\text{Vertices}}}\right)\right)^2 - 1} \cdot \left(\sqrt{\frac{\text{TSA}}{\frac{N_{\text{Vertices}}}{2} \cdot \left(\cot\left(\frac{\pi}{N_{\text{Vertices}}}\right) + \sqrt{3}\right)}}\right)^3}{12 \cdot \left(\sin\left(\frac{\pi}{N_{\text{Vertices}}}\right)\right)^2}$$

Example with Units





$$1587.5096 \text{ m}^3 = \frac{5 \cdot \sin\left(\frac{3 \cdot 3.1416}{2 \cdot 5}\right) \cdot \sqrt{4 \cdot \left(\cos\left(\frac{3.1416}{2 \cdot 5}\right)\right)^2 - 1} \cdot \left(\sqrt{\frac{780 \text{ m}^2}{\frac{5}{2} \cdot \left(\cot\left(\frac{3.1416}{5}\right) + \sqrt{3}\right)}}\right)^3}{12 \cdot \left(\sin\left(\frac{3.1416}{5}\right)\right)^2}$$



Variables used in list of Antiprism Formulas above

- **h** Height of Antiprism (Meter)
- **l_e** Edge Length of Antiprism (Meter)
- **N_{Vertices}** Number of Vertices of Antiprism
- **$R_{A/V}$** Surface to Volume Ratio of Antiprism (1 per Meter)
- **TSA** Total Surface Area of Antiprism (Square Meter)
- **V** Volume of Antiprism (Cubic Meter)

















Constants, Functions, Measurements used in list of Antiprism Formulas above

- **constant(s):** π ,
3.14159265358979323846264338327950288
Archimedes' constant
- **Functions:** **cos**, $\cos(\text{Angle})$
Cosine of an angle is the ratio of the side adjacent to the angle to the hypotenuse of the triangle.
- **Functions:** **cot**, $\cot(\text{Angle})$
Cotangent is a trigonometric function that is defined as the ratio of the adjacent side to the opposite side in a right triangle.
- **Functions:** **sec**, $\sec(\text{Angle})$
Secant is a trigonometric function that is defined ratio of the hypotenuse to the shorter side adjacent to an acute angle (in a right-angled triangle); the reciprocal of a cosine.
- **Functions:** **sin**, $\sin(\text{Angle})$
Sine is a trigonometric function that describes the ratio of the length of the opposite side of a right triangle to the length of the hypotenuse.
- **Functions:** **sqrt**, $\text{sqrt}(\text{Number})$
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: Volume** in Cubic Meter (m^3)
[Volume Unit Conversion](#) 
- **Measurement: Area** in Square Meter (m^2)
[Area Unit Conversion](#) 
- **Measurement: Reciprocal Length** in 1 per Meter (m^{-1})
[Reciprocal Length Unit Conversion](#) 



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- [Important Bent Cuboid Formulas](#) 
- [Important Bicone Formulas](#) 
- [Important Capsule Formulas](#) 
- [Important Circular Hyperboloid Formulas](#) 
- [Important Cuboctahedron Formulas](#) 
- [Important Cut Cylinder Formulas](#) 
- [Important Cut Cylindrical Shell Formulas](#) 
- [Important Cylinder Formulas](#) 
- [Important Cylindrical Shell Formulas](#) 
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- [Important Rhombohedron Formulas](#) 
- [Important Right Wedge Formulas](#) 
- [Important Semi Ellipsoid Formulas](#) 
- [Important Sharp Bent Cylinder Formulas](#) 
- [Important Skewed Three Edged Prism Formulas](#) 



- [Important Small Stellated Dodecahedron Formulas](#) 
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