# Important Oblique Prism Formulas PDF

Formulas
Examples
with Units

**List of 10**
**Important Oblique Prism Formulas**

## 1) Angle of Slope of Oblique Prism Formulas

### 1.1) Angle of Slope of Oblique Prism Formula

Evaluate Formula

Formula

$$\angle_{Slope} = asin\left(\frac{h}{l_{e(Lateral)}}\right)$$

Example with Units

$$30° = asin\left(\frac{5\,m}{10\,m}\right)$$

### 1.2) Angle of Slope of Oblique Prism given Volume Formula

Evaluate Formula

Formula

$$\angle_{Slope} = asin\left(\frac{\frac{V}{A_{Base}}}{l_{e(Lateral)}}\right)$$

Example with Units

$$30° = asin\left(\frac{\frac{100\,m^3}{20\,m^2}}{10\,m}\right)$$

## 2) Base Area of Oblique Prism Formulas

### 2.1) Base Area of Oblique Prism given Lateral Edge Length Formula

Evaluate Formula

Formula

$$A_{Base} = \frac{V}{l_{e(Lateral)} \cdot \sin\left(\angle_{Slope}\right)}$$

Example with Units

$$20\,m^2 = \frac{100\,m^3}{10\,m \cdot \sin\left(30°\right)}$$

### 2.2) Base Area of Oblique Prism given Volume Formula

Evaluate Formula

Formula

$$A_{Base} = \frac{V}{h}$$

Example with Units

$$20\,m^2 = \frac{100\,m^3}{5\,m}$$

## 3) Height of Oblique Prism Formulas

### 3.1) Height of Oblique Prism given Lateral Edge Length Formula

Evaluate Formula

Formula

$$h = l_{e(Lateral)} \cdot \sin\left(\angle_{Slope}\right)$$

Example with Units

$$5\,m = 10\,m \cdot \sin\left(30°\right)$$

### 3.2) Height of Oblique Prism given Volume Formula

Evaluate Formula

Formula

$$h = \frac{V}{A_{Base}}$$

Example with Units

$$5\,\text{m} = \frac{100\,\text{m}^3}{20\,\text{m}^2}$$

## 4) Lateral Edge Length of Oblique Prism Formulas

### 4.1) Lateral Edge Length of Oblique Prism Formula

Evaluate Formula

Formula

$$l_{e(Lateral)} = \frac{h}{\sin\left(\angle_{Slope}\right)}$$

Example with Units

$$10\,\text{m} = \frac{5\,\text{m}}{\sin\left(30°\right)}$$

### 4.2) Lateral Edge Length of Oblique Prism given Volume Formula

Evaluate Formula

Formula

$$l_{e(Lateral)} = \frac{\frac{V}{A_{Base}}}{\sin\left(\angle_{Slope}\right)}$$

Example with Units

$$10\,\text{m} = \frac{\frac{100\,\text{m}^3}{20\,\text{m}^2}}{\sin\left(30°\right)}$$

## 5) Volume of Oblique Prism Formulas

### 5.1) Volume of Oblique Prism Formula

Evaluate Formula

Formula

$$V = A_{Base} \cdot h$$

Example with Units

$$100\,\text{m}^3 = 20\,\text{m}^2 \cdot 5\,\text{m}$$

### 5.2) Volume of Oblique Prism given Lateral Edge Length Formula

Evaluate Formula

Formula

$$V = A_{Base} \cdot l_{e(Lateral)} \cdot \sin\left(\angle_{Slope}\right)$$

Example with Units

$$100\,\text{m}^3 = 20\,\text{m}^2 \cdot 10\,\text{m} \cdot \sin\left(30°\right)$$

## Variables used in list of Oblique Prism Formulas above

- $\angle_{Slope}$ Angle of Slope of Oblique Prism *(Degree)*
- $A_{Base}$ Base Area of Oblique Prism *(Square Meter)*
- **h** Height of Oblique Prism *(Meter)*
- $l_{e(Lateral)}$ Lateral Edge Length of Oblique Prism *(Meter)*
- **V** Volume of Oblique Prism *(Cubic Meter)*

## Constants, Functions, Measurements used in list of Oblique Prism Formulas above

- Functions: **asin**, asin(Number)
  *The inverse sine function, is a trigonometric function that takes a ratio of two sides of a right triangle and outputs the angle opposite the side with the given ratio.*
- Functions: **sin**, sin(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.*
- 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: **Angle** in Degree (°)
  *Angle Unit Conversion*

## Download other Important 3D Geometry PDFs

- Important Anticube Formulas
- Important Antiprism Formulas
- Important Barrel Formulas
- 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
- Important Diagonally Halved Cylinder Formulas
- Important Disphenoid Formulas
- Important Double Calotte Formulas
- Important Double Point Formulas
- Important Ellipsoid Formulas
- Important Elliptic Cylinder Formulas
- Important Elongated Dodecahedron Formulas
- Important Flat End Cylinder Formulas
- Important Frustum of Cone Formulas
- Important Great Dodecahedron Formulas
- Important Great Icosahedron Formulas
- Important Great Stellated Dodecahedron Formulas
- Important Half Cylinder Formulas
- Important Half Tetrahedron Formulas
- Important Hemisphere Formulas
- Important Hollow Cuboid Formulas
- Important Hollow Cylinder Formulas
- Important Hollow Frustum Formulas
- Important Hollow Hemisphere Formulas
- Important Hollow Pyramid Formulas
- Important Hollow Sphere Formulas
- Important Ingot Formulas
- Important Obelisk Formulas
- Important Oblique Cylinder Formulas
- Important Oblique Prism Formulas
- Important Obtuse Edged Cuboid Formulas
- Important Oloid Formulas
- Important Paraboloid Formulas
- Important Parallelepiped Formulas
- Important Ramp Formulas
- Important Regular Bipyramid Formulas
- 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
- Important Solid of Revolution Formulas
- Important Sphere Formulas
- Important Spherical Cap Formulas
- Important Spherical Corner Formulas
- Important Spherical Ring Formulas
- Important Spherical Sector Formulas
- Important Spherical Segment Formulas
- Important Spherical Wedge Formulas
- Important Square Pillar Formulas
- Important Star Pyramid Formulas
- Important Stellated Octahedron Formulas
- Important Toroid Formulas
- Important Torus Formulas
- Important Trirectangular Tetrahedron Formulas
- Important Truncated Rhombohedron Formulas

## Try our Unique Visual Calculators

- Percentage error
- LCM of three numbers
- Subtract fraction

Please SHARE this PDF with someone who needs it!

## This PDF can be downloaded in these languages

English Spanish French German Russian Italian Portuguese Polish Dutch

*7/8/2024 | 9:33:38 AM UTC*